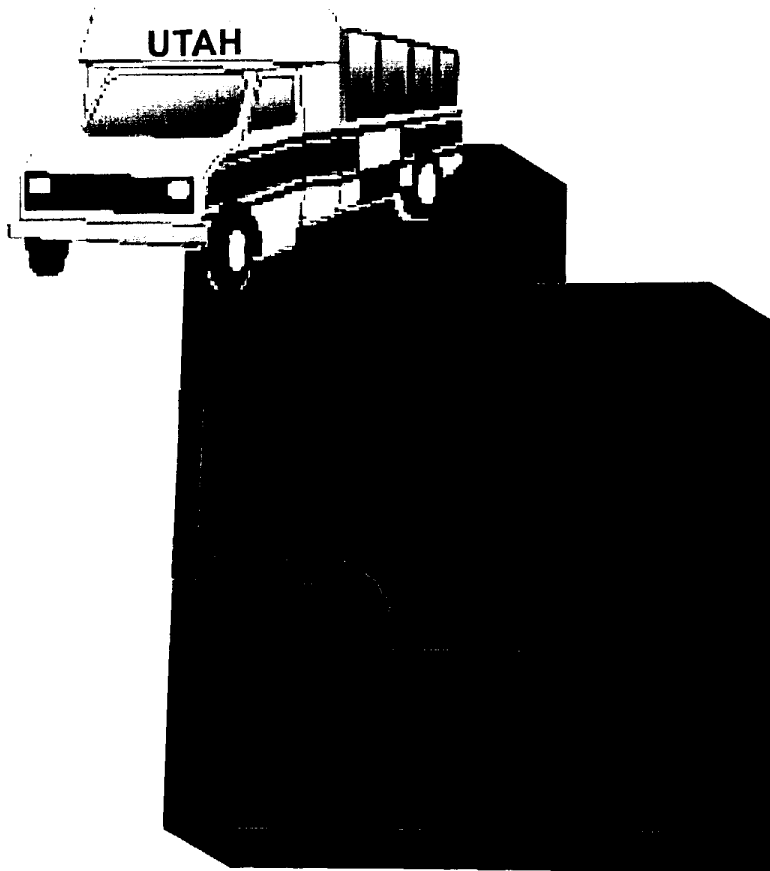
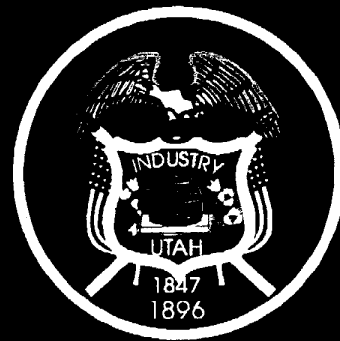


Report No. UT-98.15

Six County Rural Transit Feasibility Study Final Report



UTDOT
GOING THE EXTRA MILE



October 15, 1998

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USC
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16. Abstract <p>This document is the Final Report for a rural transit needs assessment and feasibility study. The study included the six counties of Juab, Millard, Piute, Sanpete, Sevier, and Wayne in central Utah. The study was undertaken by the Utah Department of Transportation for the Six County Association of Governments. Transit service within the six counties is limited to programs provided by senior centers and Bethphage Mission which serves clients with developmental disabilities. The study found a significant level of public transportation need within the six county area that is currently unmet.</p> <p>Several service alternatives were evaluated and specific recommendations are provided for implementing public transit service within the area. The alternatives were evaluated based on estimates of operating costs, capital costs, and demand. Consideration was also given to how well the alternatives met the goals and objectives which were established for the area. The recommendations include consolidation of the existing transportation vehicles and services under a Transit Coordinator working for the Six County Association of Governments. Public transit should be started in several of the larger communities, including Richfield, Nephi, and Manti/Ephraim. The second service to be implemented should be a regional service connecting these communities with Utah County. Cost estimates, responsibilities, and implementation steps are included for the recommended services.</p>			
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Executive Summary

Executive Summary

INTRODUCTION

The Utah Department of Transportation (UDOT) contracted with Leigh, Scott & Cleary, Inc. (LSC), in association with Fehr & Peers Associates, Inc., to prepare a feasibility study for public transportation services in the Six County Area. The Feasibility Study presents the findings and recommendations.

NEED FOR TRANSIT SERVICE

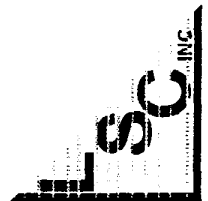
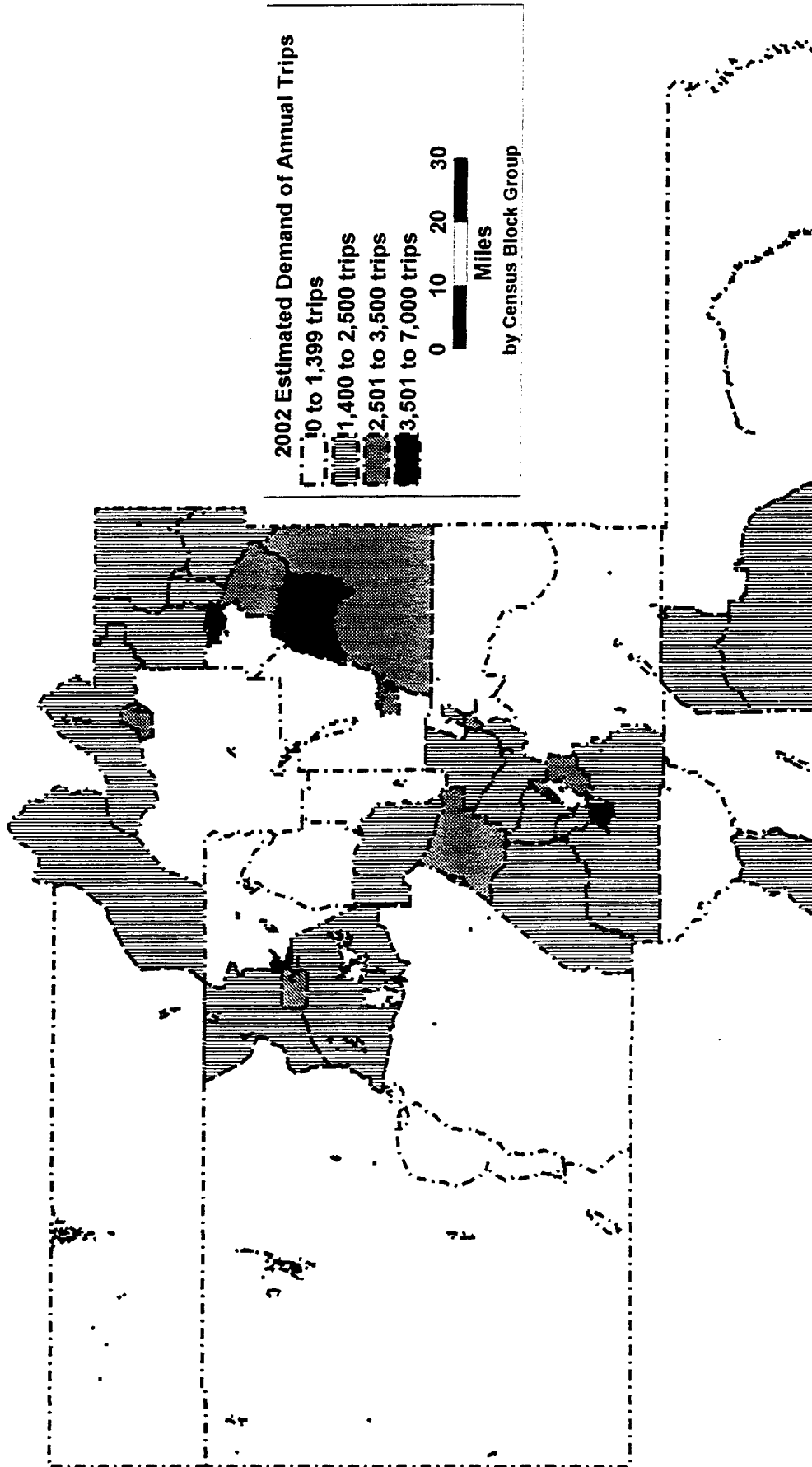
The characteristics of the region were studied to determine the level of need for public transportation services. There are currently no public transportation services within the Six County Area. Senior centers throughout the area provide limited transportation services only to the elderly. Other programs provide transportation services for their own clients, but nothing is available locally within any of the communities or regionally for the general public.

There are numerous resources for transit service available within the Six County Area. The senior centers have about 20 vehicles which are used only for elderly transportation services. Many of these vehicles are underutilized. There is a transit maintenance facility in Nephi which is used only on a very limited basis. This facility could provide space for transit dispatch operations and vehicle maintenance.

Analysis of the population characteristics indicated that there is significant need within the Six County Area. Figure ES-1 shows the distribution of transit demand throughout the study area. The estimated unmet need is 128,400 passenger-trips per year or 500 passenger-trips per day.

Figure ES-1

Six County 2002 Distribution of Estimated Demand Feasible Maximum Demand for Year 2002



The analysis of alternatives showed that it is not feasible to meet all of the currently unmet need. Portions of the Six County Area are remote and very expensive to serve with public transportation, particularly where there are low levels of demand and long travel distances. The alternatives focused on providing service to those areas shown in Figure ES-1 with the greatest need.

RECOMMENDATIONS

The recommendation is to establish a coordinated public transit system as part of the Six County Association of Governments. The AOG was found to be the best institutional entity to provide a coordinated service. The plan calls for establishing a Transit Coordinator position. The Transit Coordinator will be responsible for implementing the elements of the transit plan. Vehicles will be consolidated into a single fleet and maintained at the facility in Nephi. Transit management and dispatch operations would also be housed at the Nephi facility.

The initial service would be community circulators in Richfield, Nephi, and Manti/Ephraim. Future service may be added in Delta. This service would provide demand-response service within the respective communities. Individuals would then have access to employment, schools, businesses, and medical facilities within the community.

The second element of service would be a regional service connecting communities in the Six County Area with Utah County. Initially the service would operate between the Richfield area and Utah County, serving communities along the route. Eventually the service could be extended to serve Loa, possibly alternating days so that the bus went to Utah County two or three days a week and from Loa to Richfield one day a week.

Preliminary estimates have been made of operating and capital budgets to implement the recommended service. Tables ES-1 and ES-2 present this initial estimate. Part of the plan implementation will be to develop detailed budgets based on the actual service to be provided.

**Table ES-1
Projected Operating Budget**

Operating Expenses			
Item	Year 1	Year 2	Year 3
Transit Coordinator	48,000	49,680	51,419
Office/Facility	5,000	5,000	8,000
Dispatchers			35,000
Maintenance Personnel			25,000
Vehicle Maintenance			40,000
Drivers			128,000
Fuel, Oil			90,000
Total	\$53,000	\$54,680	\$377,419
Operating Revenues			
Local	53,000	27,340	172,710
Federal/State		27,340	172,709
Fares			32,000
Total	\$53,000	\$54,680	\$377,419

**Table ES-2
Projected Capital Budget**

Capital Expenses			
Item	Year 1	Year 2	Year 3
Vehicles	50,000	50,000	50,000
Facility Refurbishing		100,000	
Total	\$50,000	\$150,000	\$50,000
Capital Funding			
Local	10,000	30,000	10,000
Federal/State	40,000	120,000	40,000
Total	\$50,000	\$150,000	\$50,000

Note: Vehicle costs based on replacement of one vehicle per year.



CHAPTER I

Introduction

The Utah Department of Transportation contracted with Leigh, Scott & Cleary, Inc. (LSC) and Fehr & Peers Associates, Inc. to conduct a rural transit feasibility study for Juab, Millard, Piute, Sanpete, Sevier, and Wayne Counties. The rural transit study quantifies the need for a transportation system within the Six County Area and evaluates the feasibility of providing service. This report presents a summary of the existing conditions related to public transportation services, estimates of transit demand, public transportation goals for the Six County Area, available resources, service alternatives, institutional alternatives, financial alternatives, needed resources, potential transit providers, and an implementation plan.

Chapter II includes a description of the study area and the communities within the area. Chapter III introduces the existing transportation providers, including the senior centers, school districts, and other providers in the Six County Area. Chapter IV addresses the issues in the study area and those goals and objectives of the transit study. Chapter V describes the needs assessment for the area including the demand estimation. Chapter VI describes the service alternatives available in the Six County Area. Chapter VII includes the institutional alternatives in the area. Chapter VIII introduces the financial alternatives such as federal, state, and local funding options. Chapter IX describes the needed resources for establishing the Six County Transit System. Chapter X identifies the potential transit providers within the Six County Area. Chapter XI introduces an effective implementation plan for public transportation services.

The study focuses on transportation issues in the Six County Area. The primary factor for the Six County Area is the **lack of** a public transportation system within the six counties. For some residents of the area, a future public transportation system may become a primary link to work, educational opportunities, shopping, health care facilities, and other necessary services.

An additional focus of the study is coordination among the communities to provide a multimodal system that includes all types of modes from ridesharing to services for the elderly and disabled populations to intercity transportation such as Greyhound Bus Lines. Coordination efforts must be administered at all levels including private and public transportation providers within the study area.

Utah Department of Transportation, the Federal Highway Administration, and the LSC team are taking a close look at alternatives for the best public transportation system. The system would present the most effective and efficient transportation services for the Six County Area.

CHAPTER II

Setting for Services

Transportation has always played an important role in the Six County Area. Early settlers depended on agriculture; but this changed in the mid-1800s when the precious metals of silver, gold, copper, lead, zinc, and uranium were discovered. Mining continued large-scale through the 1950s and exists today but as much smaller operations.

STUDY AREA LOCATION

The area considered in this study consists of the Utah Six County Area, comprised of Juab, Millard, Piute, Sanpete, Sevier, and Wayne Counties. The area is located in south-central Utah and labeled by the *Utah Travel Guide* as "Panoramaland." The area encompasses approximately 17,000 square miles, ranging from the Great Basin to the Rocky Mountain Province. The following paragraphs give a brief profile and reveal some interesting facts about each county within the study area. Figure II-1 illustrates the entire Six County Area.

COUNTY PROFILES

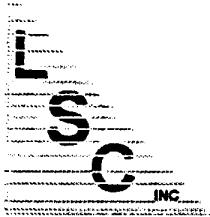
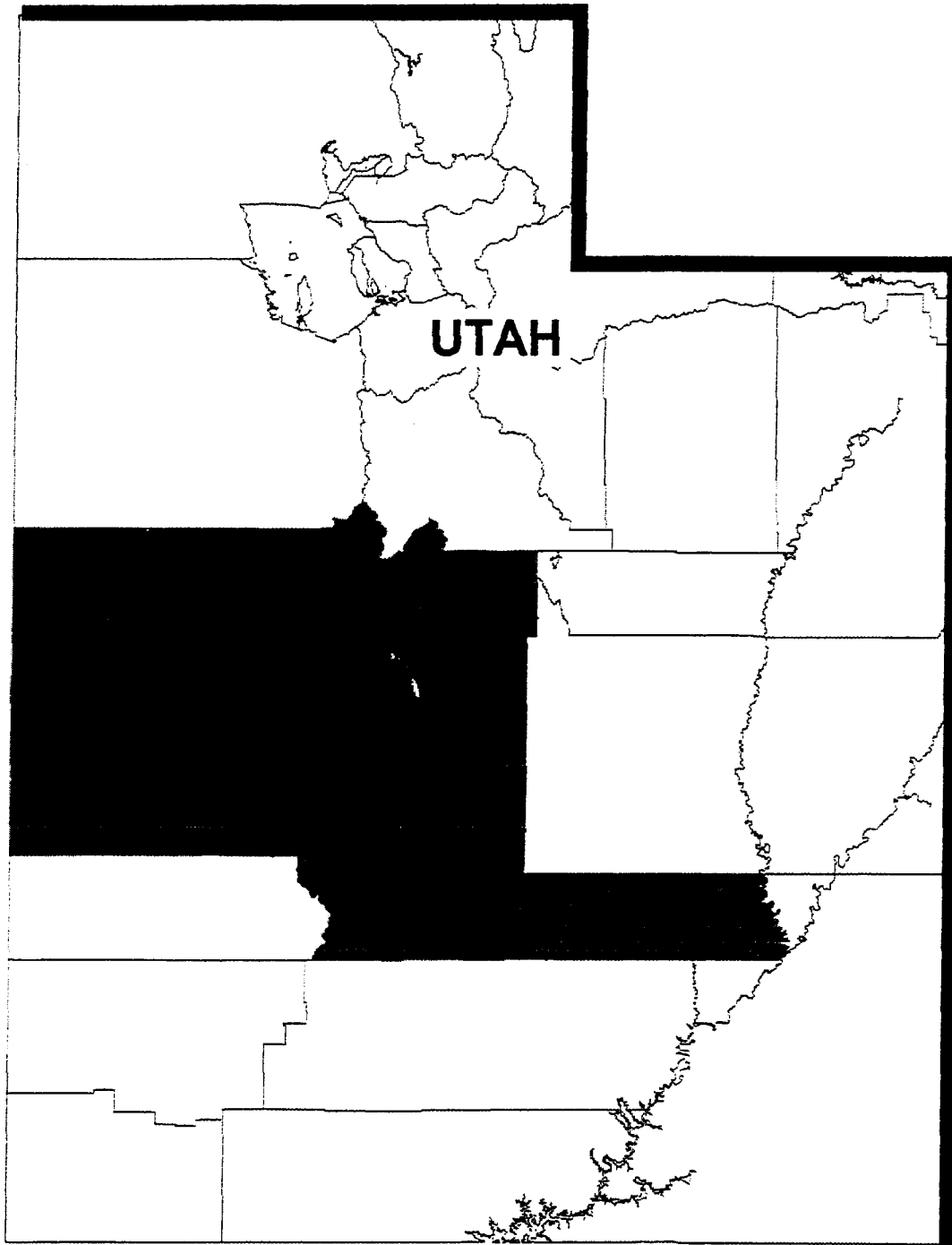
Figure II-2 illustrates a close-up of Juab and Millard Counties. Figure II-3 presents Piute, Sanpete, Sevier, and Wayne Counties in a close-up profile.

Juab County

Juab County, established in 1852, acquires its name from "yoab"- a Ute Indian word meaning flat or level plain. Juab County is 125 miles long and 25 miles wide at its narrowest point. It has an area of 3,412 square miles. The east end of the county is in the center of the state and the county extends west to the Nevada border. Few counties have such a diversity of land use and different occupations. The east portion has always been conducive to agriculture and the raising of livestock. The low desert mountain ranges on the west have produced some of Utah's richest mining regions.

Figure II-1

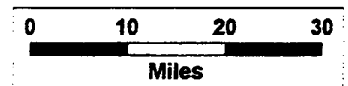
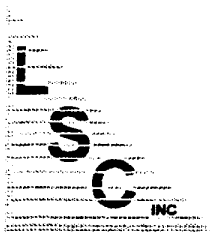
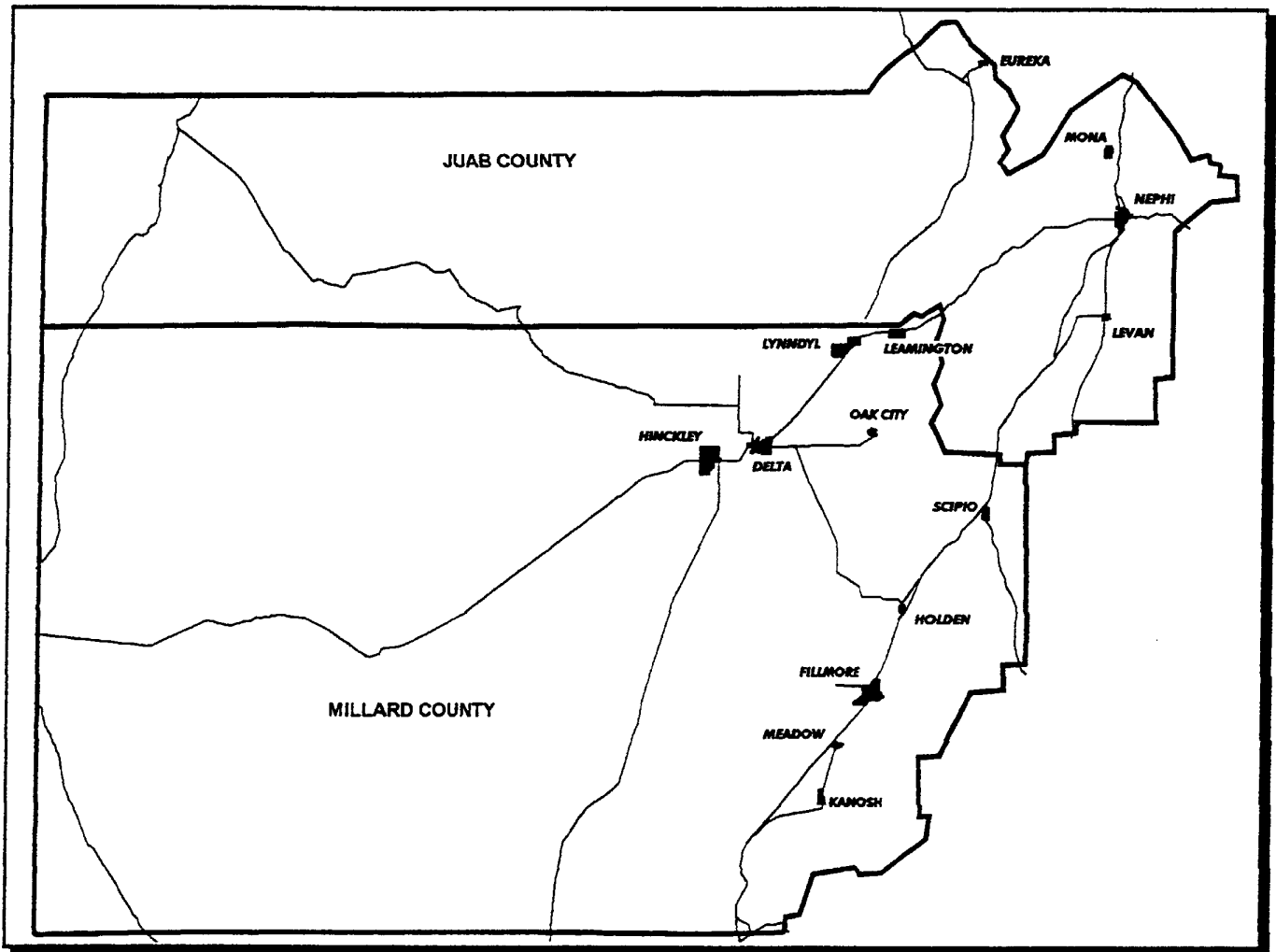
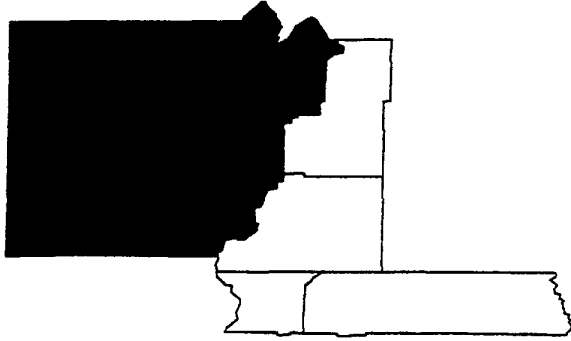
Location of Study Area



Six County Area

Figure II-2

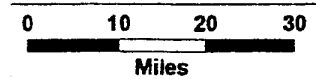
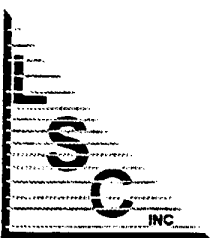
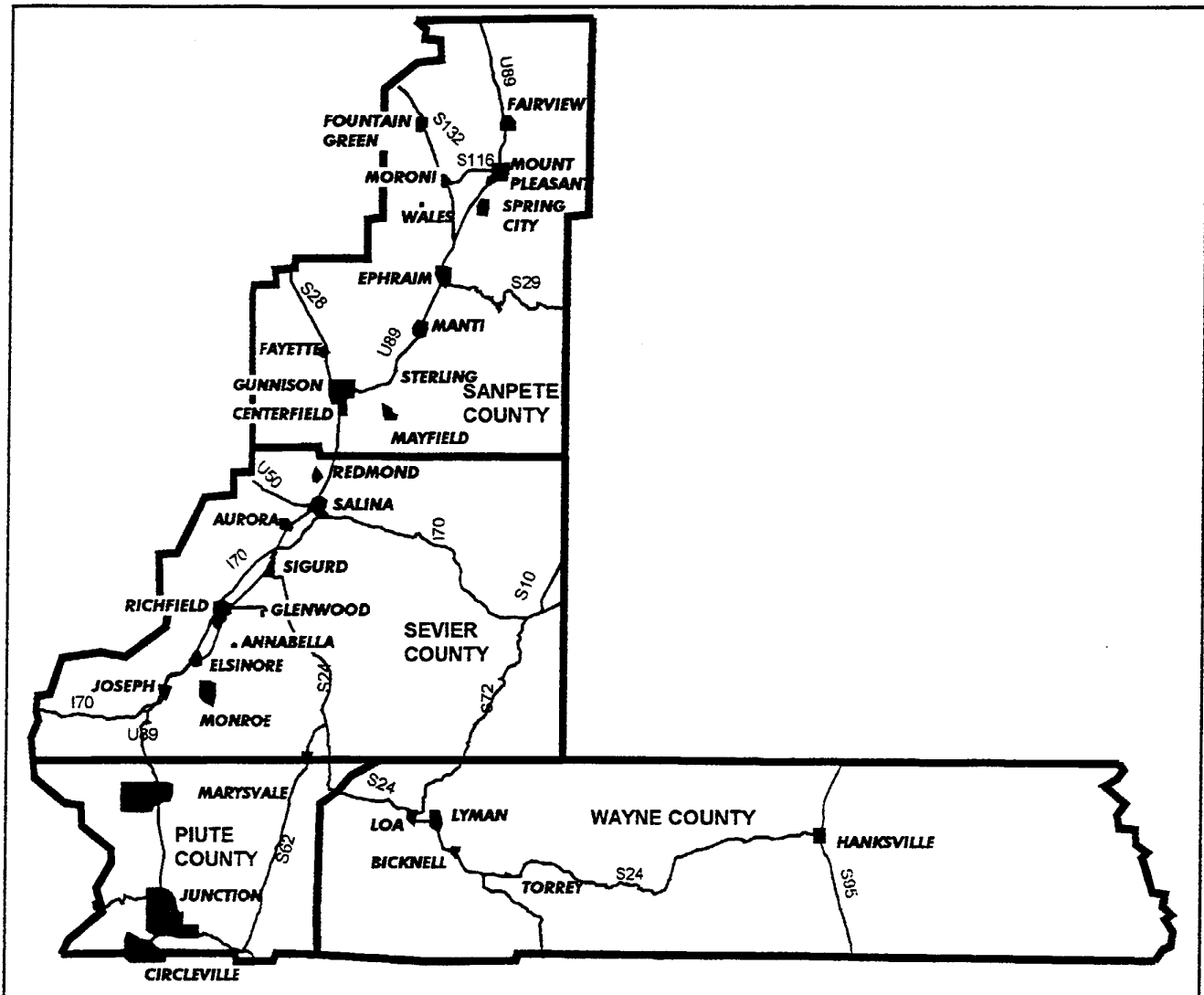
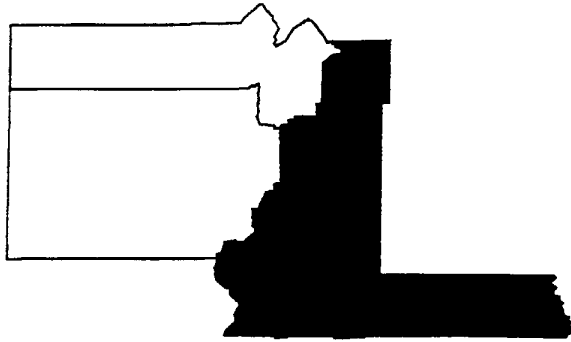
Juab and Millard Counties



Six County Area

Figure II-3

Piute, Sanpete, Sevier and Wayne Counties



The two leading cities in the county have always been Nephi and Eureka. Nephi is the larger of the two cities with 4,134 persons in residence and is also the county seat. It was known as "Little Chicago" in the early days when the west side of the county had so much activity connected to its mining industry. Levan, located in the center of the county, and Mona are the other populated areas within the county.

Government, trade, and services account for much of Juab County's employment. Agriculture and tourism-related industries are also very important to the economy. Southerly expansion of the metropolitan portion of the state is expected to impact economic and demographic growth in the county. By 2020, population projections for the county are expected to exceed over 11,000 persons.

Millard County

Millard County, first settled in 1851, is named in recognition of President Millard Fillmore. Millard County is bordered on the east by the Pahvant Range, while west to the Nevada border lie the valleys and desert mountain ranges typical of the Great Basin. The two larger cities within the county are Delta and Fillmore. The city of Fillmore was the Utah state capital for a few years until the Legislature voted in 1856 to move it to the more populous Salt Lake City. Delta is the larger of the cities with 3,073 persons in residence. Fillmore has a population of 1,956 persons. Other smaller towns within the county include Hinckley, Holden, Kanosh, Leamington, Lynndyl, Meadow, Oak City, and Scipio.

Ranching and farming developed slowly in Millard County. In the early twentieth century, sheep ranges were predominant, but later cattle became the major livestock interest. The establishment of the Union Pacific line through west Millard County and the founding of the city of Delta in 1907 led to the most important agricultural development of large-scale alfalfa seed production.

Mining and smelting have contributed to the county's economic growth, with the production of significant amounts of fluorspar, copper, manganese, sulphur, gypsum, beryllium, and salt. The most important industrial development began in the 1970s when Intermountain Power Project (IPP) opened its coal-burning

plant near Delta. Southern California buys much of the electricity generated by IPP.

In 1996, 11,958 persons lived in Millard County. By the year 2020, Millard County is projected to surpass 16,600 people. The county has the fourth highest number of acres of land in farms with 484,000 acres and 612 farms. Millard is a leading producer of alfalfa, wheat, barley, oats, corn, cattle, and milk cows.

Piute County

Piute County, named for the Paiute Indian tribe, was split off from Beaver County in 1865. Its western boundary approximates the crest of the Tushar Mountains. Most of the county's population is concentrated in the Sevier River Valley. Grass Valley (Otter Creek) lies between the Sevier Plateau in the center of the county and the Parker Range on the eastern border.

Circleville and Junction were settled in 1864 by a group of Mormon pioneers from Ephraim. Crops and livestock were important early on. The Sevier Valley provided good grazing, and livestock remains important to the economy. The discovery of gold and silver in the Tushar Mountains created several boom towns during the late 1800s. The completion of the railroad branch line to Marysvale in 1900 linked Piute's mines and farms to markets outside the county. Mining continued to be important during both world wars, when the county's large reserves of high-grade alunite ore were in demand.

As in most of Utah's rural counties, economic forces tend to push recent high school graduates toward the opportunities in the urban areas. Piute County residents depend on nearby Richfield for major services. The largest town in the county is Circleville with 441 people residing there in 1996. Piute County has the second smallest population in the state of Utah. The county is projected to reach 2,160 people by the year 2020. Other towns within the county include Junction, Marysvale, and Kingston.

Sanpete County

Sanpete County was established in 1850. Its name is a corruption of San Pitch, the name of the local American Indian tribe. Since settlement, Sanpete's economy has been agriculturally based. Grain crops and cattle were important early on, and sheep dominated the local economy from 1880 through the 1920s. Turkeys became a cooperative, integrated industry during the Great Depression, and today Sanpete ranks among the top ten turkey-producing counties in the country.

The population of Sanpete County reached nearly 20,000 people in 1996. The largest city, Ephraim—also known as Little Denmark, has a population of 3,699 reported in 1996. Ephraim established the Sanpete Stake Academy in 1888, which is known today as Snow College and is one of the oldest junior colleges in America. The second largest community is Manti, also known as the Temple City. It has a population of 2,660. Other significant communities within the county include Centerfield, Fairview, Fayette, Fountain Green, Gunnison, Mayfield, Moroni, Mount Pleasant, Spring City, Sterling, and Wales. Sanpete County's population projection is 33,250 persons for 2020.

Agriculture has always figured prominently in the economic lifeblood of Sanpete County. The nearly 700 farms in the county comprise about two-thirds of the total land area. Total agricultural income is sufficient to rank Sanpete fourth among the counties in the state of Utah based on economic importance. Sanpete County is perhaps best known for its turkey production and is the leading producer of sheep in Utah.

Sevier County

Sevier County was formed from the south section of Sanpete County in 1865, and named for the Sevier River—what the Spanish called the Rio Severo (severe and violent). Because of the Indian trouble during the Black Hawk War, the settlements in Sevier County were abandoned about 1867, but some returned in the 1870s after a peace treaty was signed in 1873. More communities were established or resettled and today there are fourteen: Annabella, Aurora, Central Valley, Elsinore, Glenwood, Joseph, Koosharem, Monroe, Redmond, Richfield, Salina, Sevier, Sigurd, and Venice. Eleven of these are incorporated.

Richfield was established early and grew quickly, and soon became a major regional commercial center. It is now the county seat of Sevier County. In 1996, an estimated 6,057 persons resided in Richfield. The second largest community is Salina where the population is approximately 2,150 persons. Salina is headquarters for Southern Utah Fuel Company which employs a significant number of workers at the coal mines in Salina Canyon. Sevier County, in 1996, had a population of 17,680 persons. This population is expected to swell to 28,245 persons by the year 2020.

The early days of irrigation canals and reservoirs brought the need for drainage districts which were established in 1921. Through these efforts, over 50,000 acres of cropland exist today in the valley area. The main crops are hay, barley, oats, corn, silage, and wheat. The detailed industries of agriculture, coal and non-metallic minerals extraction, trucking and warehousing, and tourism-related industries are important to the economy. Sevier County is the leading producer of gypsum, oats, and cattle.

Wayne County

Wayne County was created in May 1892 from Piute County. The county was named after state legislator Willis E. Robison's son. Most of Wayne County's towns were settled after 1880 because of their remoteness and limited resources. The county lies entirely within the Colorado Plateau geographical province. Raising livestock was the oldest and most important industry to the local economy of the past. The creation of the Dixie and Fishlake National Forests in the early twentieth century limited the amount of private grazing lands in the county. The lumber industry, State Fish Hatchery, and tourism associated with Capitol Reef National Park have become economically significant in recent years.

The largest community within the county and the county seat is Loa with a population in 1996 of 487. Other communities include Bicknell, Lyman, Hanksville, and Torrey. Wayne County had a population of 2,390 in 1996. Wayne County is projected to have 3,880 people by the year 2020.

TRANSPORTATION SYSTEM CHARACTERISTICS

Highways

Two major interstate highways run through the study area. Interstate 15, running north/south, connects Salt Lake City and Provo to the Six County Area. The interstate runs through Nephi in Juab County and Fillmore in eastern Millard County. It continues south to the Arizona state line and on to Las Vegas, Nevada. Interstate 70, the second interstate highway, runs east/west through Sevier County. I-70 ends at the intersection of I-15 running north/south in southern Millard County. Interstate 70 runs east connecting Richfield, in Sevier County, to Grand Junction, Colorado and continues eastward.

There are several other major highways connecting communities within the Six County Area. US 6 runs north/south through Juab and Millard Counties. Eureka, Lynndyl, and Delta are a few of the communities connected by the highway. US 50 runs west with I-70 until the town of Salina in Sevier County. Highway 50 splits from I-70 and continues west to Scipio and Delta in Millard County. It is the primary road of travel in Millard County west of Delta and continues to the Nevada state line. US 89 runs from Provo south through Fairview, Mount Pleasant, and Ephraim in Sanpete County. It continues south through Sevier and Piute Counties connecting the communities of Salina, Richfield, Sevier, Marysvale, and Junction. It continues south to the Arizona state line and eventually to Flagstaff, Arizona.

Railroads

The Six County Area does not have rail passenger service. The closest Amtrak locations would be Green River, east of the Six County Area; Helper, east of the study area; or Provo, north of the study area. The region has two freight lines, the Union Pacific and the Southern Pacific. The Union Pacific Railroad runs north/south, parallel with Interstate 15 through Millard and Juab Counties. The Southern Pacific runs just north of Juab County with tracks parallel to those of Union Pacific.

Aviation Facilities

The Six County Area has three airports and eight landing areas. The airports include Richfield Airport, Fillmore Airport, and Delta Airport. The landing areas include Nephi Landing Area, Mount Pleasant Landing Area, South Hanksville Landing Area, Junction Landing Area, Manti-Ephraim Landing Area, Garrison Landing Area, Hanksville Landing Area, and Salina-Gunnison Landing Area. The closest international airport is the Salt Lake City International Airport.

MAJOR ACTIVITY CENTERS

Major activity centers are important both in terms of land use, trip generation rates, and their ability to be served by public transit. Tables II-1 through II-6 provide lists of the more important points of interest identified within each county and by their community. Many of the points of interest are clustered together into what can be termed "activity centers."

Table II-1	
Juab County Activity Centers	
East Juab Senior Center	American Red Cross
Eureka Senior Center	Eureka Recreation Center
Juab School District	Juab County Center, Utah State University
Nephi Job Service	Juab County Public Health Department
Central Valley Medical Center	Canyon Hills Health Care Center
Nebo View Senior Apartments	Red Cliff View Senior Apartments
Bethphage Mission West, Inc.	Office of Family Support

Figure II-4 illustrates the activity centers in Juab County.

Figure II-4

Juab County Activity Centers

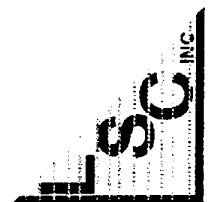
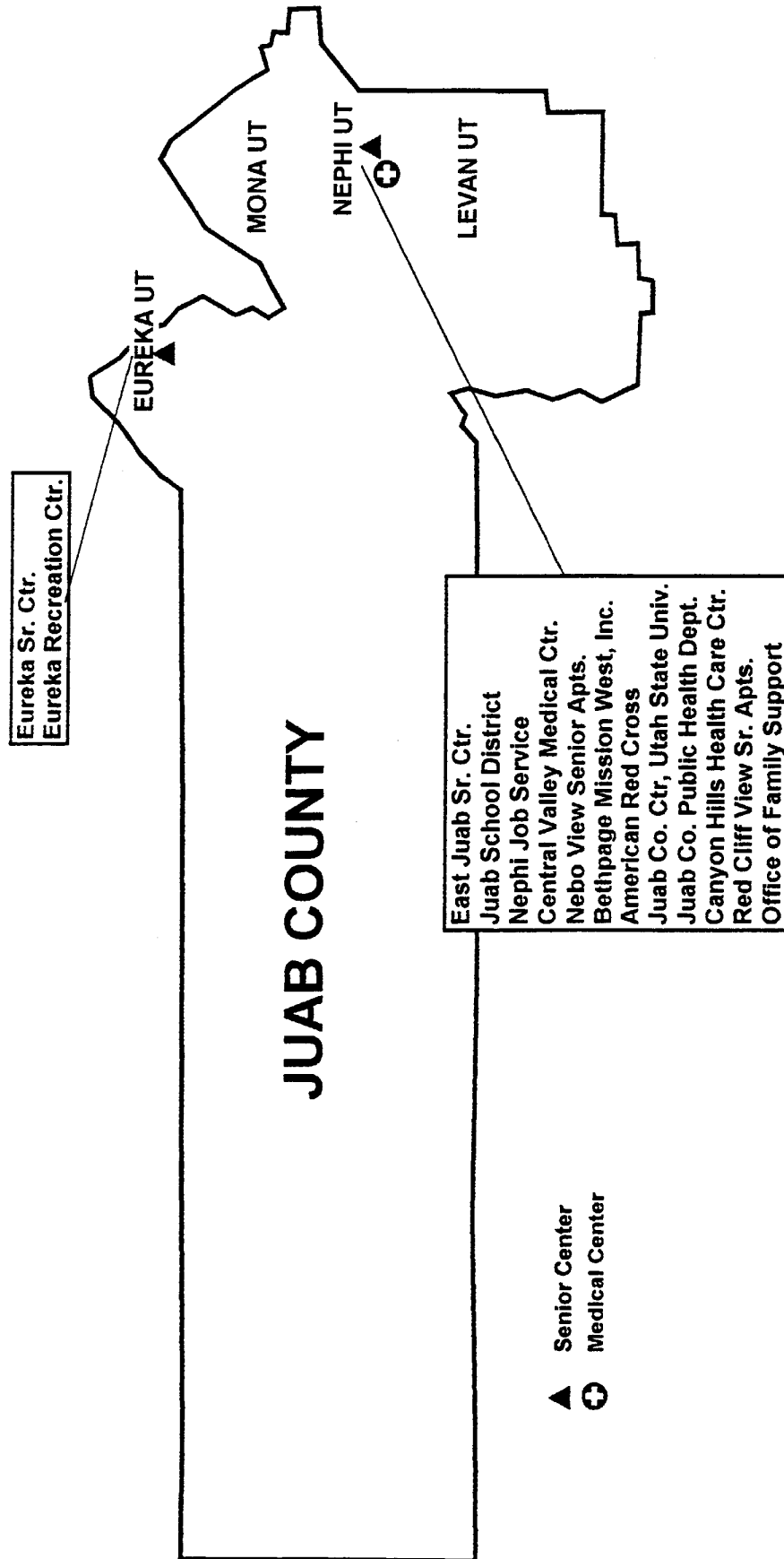


Table II-2	
Millard County Activity Centers	
Delta High School	Delta Itinerant Job Service
Millard High School	Delta Turning Point
Fillmore Middle School	East Millard Public Health Department
Delta Vocational Rehabilitation Services	West Millard Public Health Department
Delta Technical Center	Fillmore Community Medical Center
Millard County Center, Utah State University	Delta Community Medical Center
Fillmore Job Service	West Millard Care Center
Scipio Senior Center	West Millard Senior Center
Pahvant Senior Center	Delta Sands Senior Apartments
Delta Senior Manor	Mt. Catherine Manor for Seniors
Pleasant Acres Residential Care	Office of Family Support
American Red Cross	Fillmore Mission

Table II-3	
Piute County Activity Centers	
Oscarson Elementary School	Circleville Elementary School
Piute High School	Piute County Center, Utah State University
Piute County Public Health Department	Piute Senior Center
Office of Family Support	American Red Cross

Millard and Piute County activity centers are illustrated in Figure II-5.

Figure II-5

Millard and Piute County Activity Centers

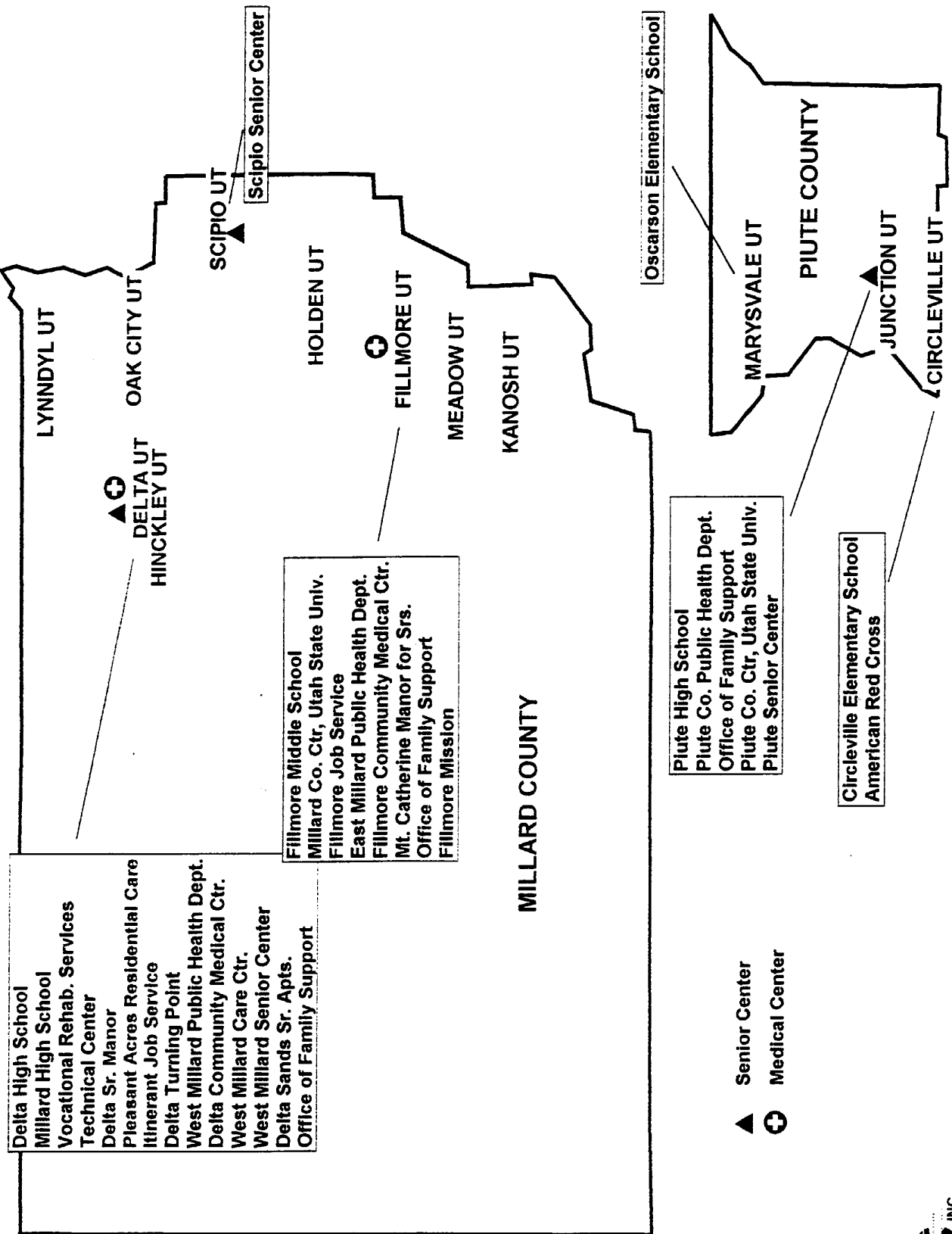


Table II-4 Sanpete County Activity Centers	
North Sanpete School District	South Sanpete School District
Manti Vocational Rehabilitation Services	Snow College
Sanpete County Center, Utah State University	Central Utah Correctional Facility
Ephraim Job Service	Turning Point
North Sanpete Public Health Department	South Sanpete Public Health Department
Gunnison Valley Hospital	Mayfield Community Care Center
Moroni Senior Center	Manti Senior Center
Ephraim Senior Center	Gunnison Senior Center
Christensen Senior Citizen Apartments	Silver Maple Leaf Senior Apartments
Manti Senior Apartments	Manti Office of Family Support
American Red Cross	

Figure II-6 illustrates the activity centers for Sanpete County.

Figure II-6

Sanpete County Activity Centers

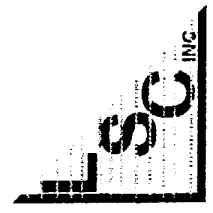
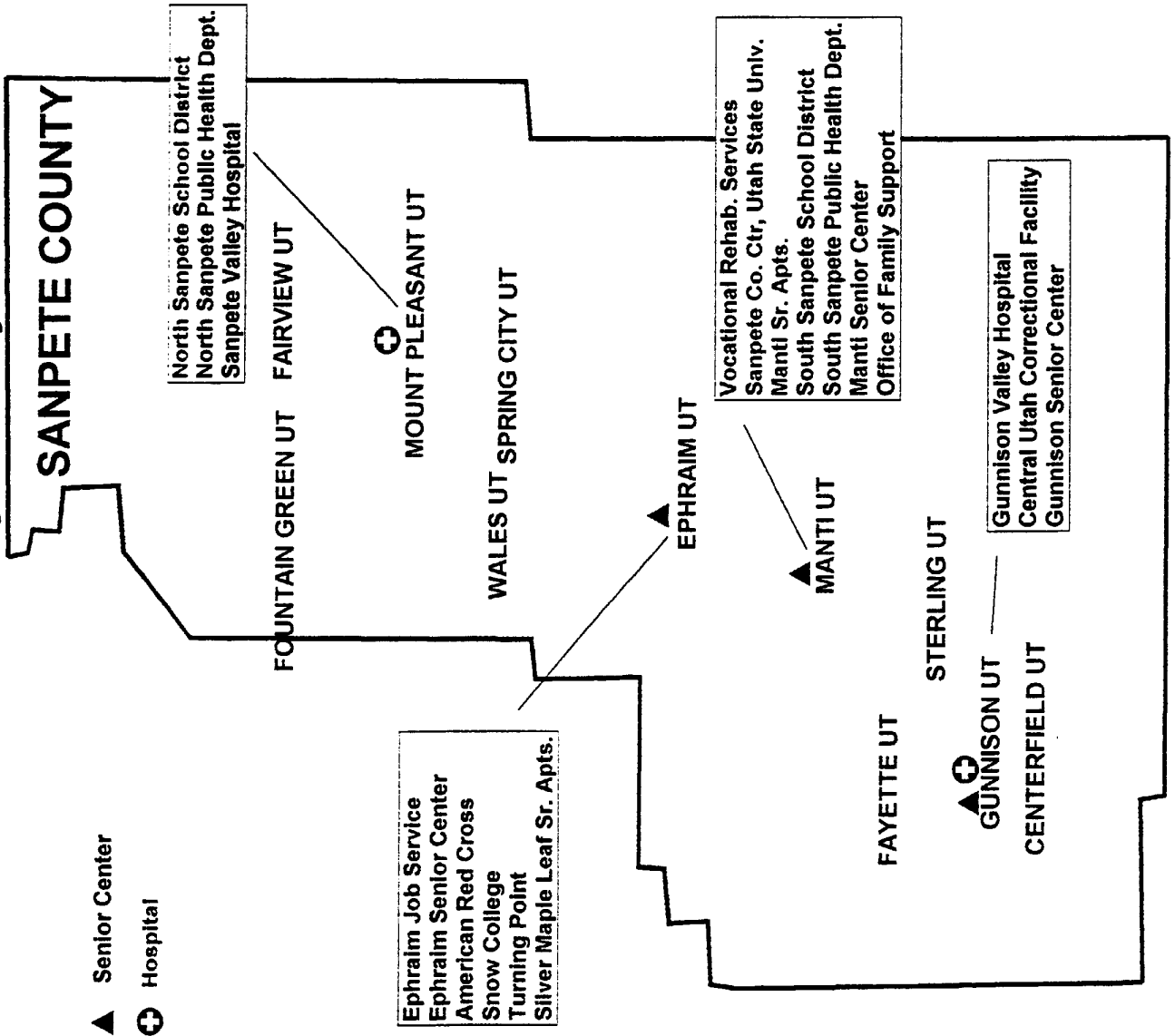


Table II-5 Sevier County Activity Centers	
Ashman Elementary School	Koosharem Elementary School
Monroe Elementary School	Pahvant Elementary School
North Sevier Middle School	Red Hills Middle School
South Sevier Middle School	North Sevier High School
Richfield High School	South Sevier High
Cedar Ridge High School	Salina Elementary School
Richfield Vocational Rehabilitation Services	Sevier Valley Applied Technology Center
Sevier County Center, Utah State University	Rural Utah Child Development HeadStart
Central Utah Educational Service Center	Adults and Community Education
RSVP for Sevier Valley Education	Sevier School District Preschool
Richfield Job Service	Turning Point
Sevier Public Health Department	New Horizons Crisis Center
Sevier Valley Hospital	Richfield Care Center
Division of Youth Corrections	Central Utah Youth Home
Area Agency on Aging	Richfield Senior Center
South Sevier Senior Center	North Sevier Senior Center
Urcy Belle Senior Apartments	Curtis Residential Home
Beehive Homes of Richfield #1	Beehive Homes of Richfield #2
Aging Human Resources Department	Six County Employment and Training
Office of Housing Services	Office of Family Support
American Red Cross	Salvation Army

Figure II-7 presents the activity centers for Sevier County.

Figure II-7

Sevier County Activity Centers

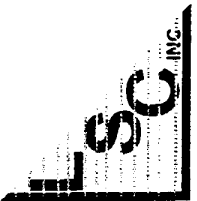
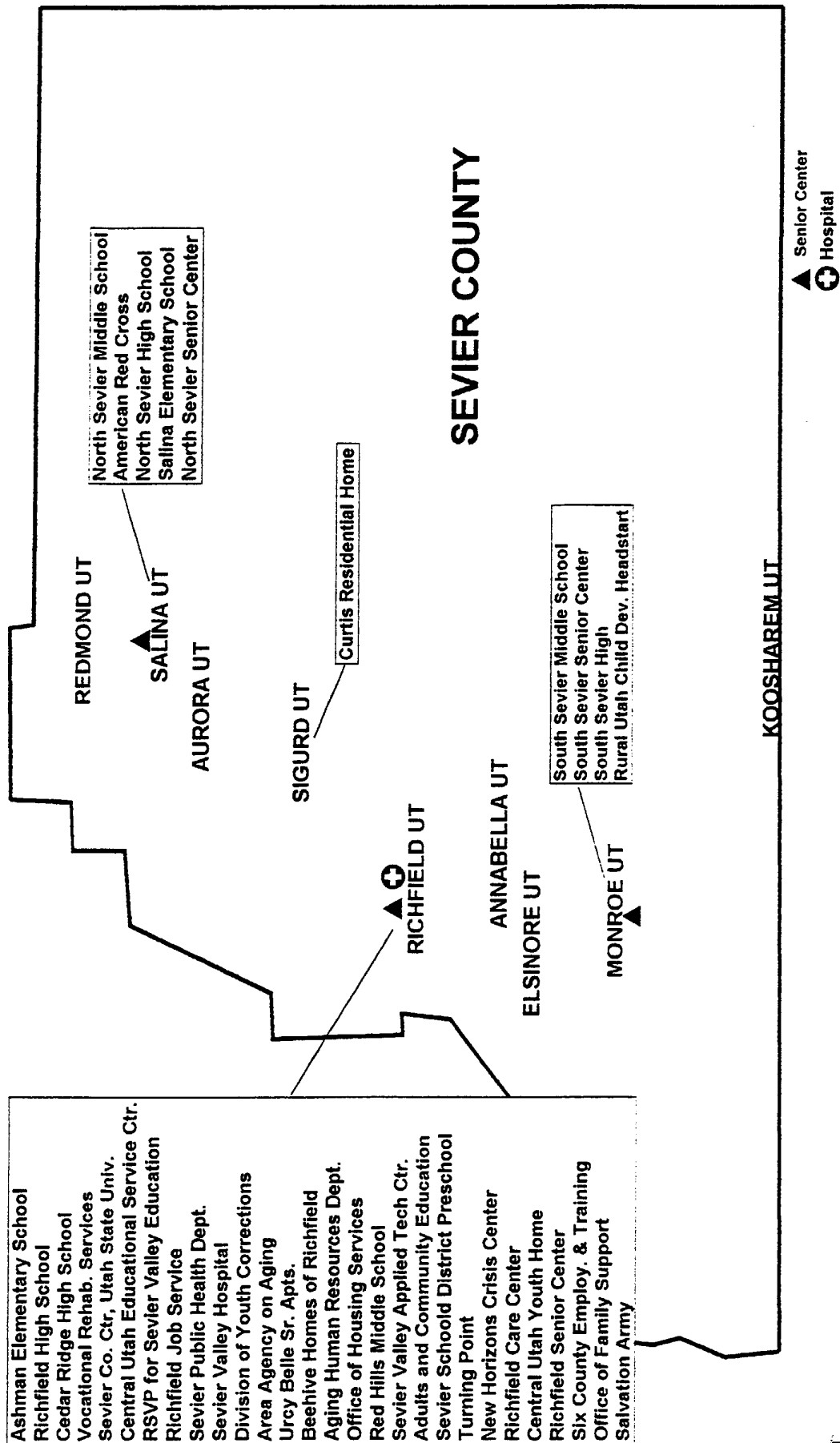


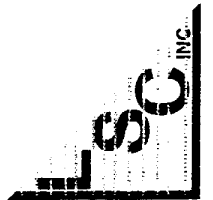
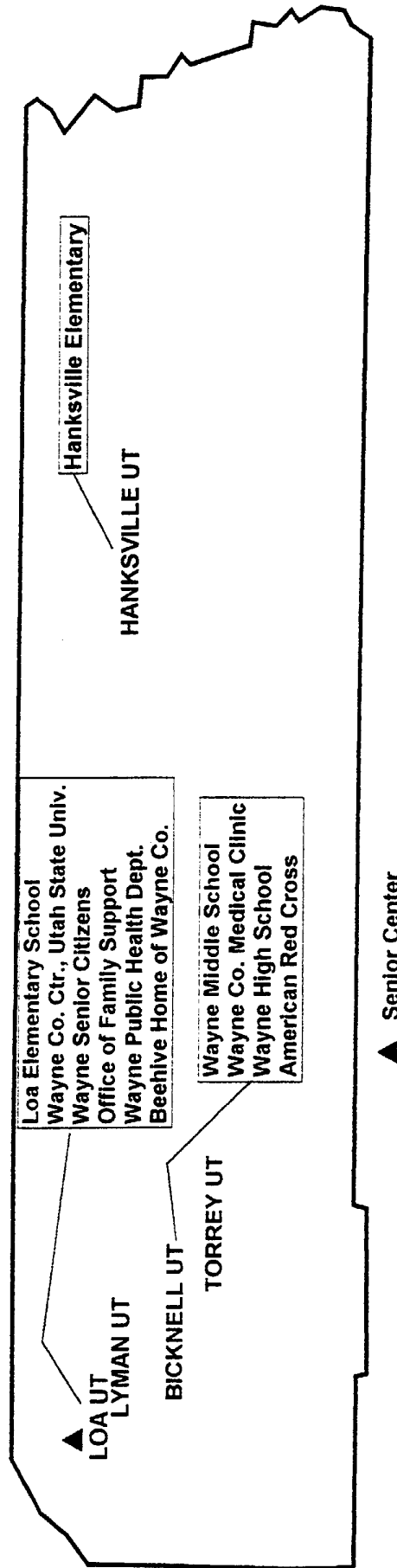
Table II-6 Wayne County Activity Centers	
Loa Elementary School	Hanksville Elementary
Wayne Middle School	Wayne High School
Wayne County Center, Utah State University	Wayne Public Health Department
Wayne Senior Citizens	Beehive Home of Wayne County
Office of Family Support	American Red Cross

Figure II-8 illustrates the Wayne County activity centers.

The important points of interest within each of the previous tables identify major activity centers within each county. Each county also has the local grocers, post office, town halls, library, banks, parks, athletic fields, and other facilities within the communities.

Wayne County Activity Centers

Figure II-8



STUDY AREA DEMOGRAPHICS

1990 Population

The permanent population of the Six County Area was reported by the 1990 Census to be 52,294 persons. The 1990 Census reported a total of 5,817 persons in Juab County, 11,333 persons in Millard County, 1,277 persons in Piute County, 16,259 persons in Sanpete County, 15,431 persons in Sevier County, and 2,177 persons in Wayne County. Table II-7 presents county-wide population characteristics by census block group. The population density is illustrated in Figure II-9. The two largest cities in the Six County Area, Richfield and Nephi, are shown close-up in Figure II-10.

Table II-7 also provides information on the population in the Six County Area by gender and race.

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Table II-7
General Population Characteristics
For the Six County Area by Census Block Groups

Census Block Group			Land Area (sq. ml.)	Total Population (Persons)	Population by Gender		Population by Race						
Census Tract	Block Group	Description			Male	Female	White	Black	American Indian	Asian/ Pac. Is.	Other Race		
Juab County													
9731	1	NE Juab County	272.5	876	442	434	874	0	2	0	0	0	
9731	2	N and W of Nophl	17.6	1,303	595	708	1,287	0	0	0	0	16	
9731	3	Central Nophl	0.7	1,121	534	587	1,121	0	0	0	0	0	
9731	4	South Nephli	1.4	1,236	666	570	1,169	0	61	0	0	6	
9731	5	SE Juab County	640.0	494	244	250	492	0	2	0	0	0	
9732	1	Central Juab County	449.2	613	310	303	611	0	2	0	0	0	
9732	2	West Juab County	2,003.3	174	131	43	138	0	33	0	0	3	
Juab County Totals				5,817	2,922	2,895	5,692	0	100	0	0	25	
Millard County													
9741	1	S & E of Oak City	181.4	738	385	353	727	0	0	0	0	11	
9741	2	NE of Della	264.8	489	242	247	487	0	0	0	0	2	
9741	3	North Della	6.2	1,533	749	784	1,533	0	0	0	0	0	
9741	4	South Della	3.8	1,610	796	814	1,599	0	6	0	0	5	
9742	1	NW of DeltaN of Hinckley	205.1	931	476	455	904	0	0	0	0	27	
9742	2	S of Della and Hinckley	302.4	840	435	405	802	0	12	0	0	26	
9742	3	W Millard County	3,594.0	258	153	105	222	0	9	0	0	27	
9742	4	Della	23.4	1,062	538	524	1,035	0	9	0	0	18	
9743	1	Scipio area	145.3	281	143	138	281	0	0	0	0	0	
9743	2	Holden area	167.0	484	262	222	471	0	10	0	0	3	
9743	3	E of Fillmore	129.7	1,124	548	576	1,040	0	0	62	22	22	
9743	4	Central Fillmore	2.2	895	433	462	810	0	37	19	29	29	
9743	5	S & W of Fillmore & I15	1,282.4	301	142	159	264	0	0	0	0	37	
9743	6	Kanosh area E of I15	271.6	787	394	393	736	0	45	0	0	6	
Millard County Totals				11,333	5,696	5,637	10,911	0	128	81	0	213	
Plute County													
9801	1	East Plute County	381.7	292	164	128	292	0	0	0	0	0	
9801	2	SW Plute County	115.3	534	277	257	528	0	6	0	0	0	
9801	3	NW Plute County	260.2	451	211	240	451	0	0	0	0	0	
Plute County Totals				1,277	652	625	1,271	0	6	0	0	0	
Sanpete County													
9721	1	NE Sanpete County	202.1	819	394	425	811	0	2	6	0	0	
9721	2	Fairview area	3.7	589	292	297	586	0	0	3	0	0	
9721	3	W of Fairview & Mt. Pleasant	33.4	907	456	451	884	0	19	4	0	0	
9721	4	E of Mt. Pleasant	108.3	655	326	329	641	0	9	2	3	3	
9721	5	Central Mt. Pleasant	0.6	883	417	466	862	0	0	2	19	19	
9721	6	Spring City & area SE	84.6	934	472	462	917	0	17	0	0	0	
9722	1	NW Sanpete County	141.6	632	330	302	618	0	14	0	0	0	
9722	2	Moroni area	13.2	1,196	599	597	1,101	0	5	0	0	90	
9722	3	Wales & surrounding area	86.8	458	229	229	458	0	0	0	0	0	

**Table II-7
General Population Characteristics
For the Six County Area by Census Block Groups**

Census Tract	Census Block Group	Area Description	Land Area (sq. mi.)	Total Population (Persons)	Population by Gender		Population by Race					
					Male	Female	White	Black	American Indian	Asian/Pac. Is.	Other Race	
9723	1	SW Sanpete County	346.2	525	256	269	503	0	0	0	22	
9723	2	NE Gunnison	5.1	1,186	599	587	1,165	0	9	11	1	
9723	3	S Gunnison	10.3	913	461	452	894	0	3	7	9	
9724	1	E Ephraim	36.9	2,093	937	1,156	1,906	6	0	160	21	
9724	2	W Ephraim	24.0	1,401	663	738	1,216	0	84	38	63	
9725	1	E Mantli & area E	46.6	1,102	552	550	1,082	0	0	8	12	
9725	2	W Mantli	9.1	1,195	557	638	1,145	0	9	0	41	
9725	3	SE Sanpete County	434.0	771	372	399	763	0	2	3	3	
Sanpete County Totals			1,586.4	16,259	7,912	8,347	15,552	6	173	244	284	
Sevier County												
9751	1	NE Sevier County	419.0	712	360	352	700	0	4	0	8	
9751	2	N Salina	6.2	955	474	481	947	0	2	0	6	
9751	3	SW Salina	5.7	1,027	511	516	1,022	0	5	0	0	
9751	4	NW Sevier County	97.8	1,026	544	482	1,026	0	0	0	0	
9752	1	Sigurd & area W	94.0	736	372	364	709	0	11	0	16	
9752	2	SE Sevier County	768.9	341	189	152	322	0	11	8	0	
9752	3	Glenwood & Annabella area	27.7	1,116	554	562	1,086	0	6	0	24	
9753	1	Area N & W of Richfield	51.7	850	386	464	850	0	0	0	0	
9753	2	N Richfield	0.3	1,002	491	511	919	0	66	0	17	
9753	3	Central Richfield	0.5	811	423	388	808	0	0	3	0	
9753	4	S Richfield	0.9	1,226	544	682	1,226	0	0	0	0	
9754	1	NE Richfield area	4.4	897	489	408	785	0	112	0	0	
9754	2	E Richfield area	0.5	958	431	527	939	0	19	0	0	
9754	3	SE Richfield area	14.7	471	238	233	459	0	11	1	0	
9755	1	NW Elsinore area	17.5	607	302	305	603	0	4	0	0	
9755	2	SW Sevier County	384.0	731	374	357	661	0	41	0	29	
9755	3	NW Monroe area	10.2	1,137	551	586	1,110	0	0	17	10	
9755	4	N Monroe area	4.7	828	395	433	823	0	3	2	0	
Sevier County Totals			1,908.4	15,431	7,628	7,803	14,995	0	295	31	110	
Wayne County												
9791	1	E Wayne County	1,867.9	309	150	159	275	0	32	0	2	
9791	2	SW Wayne County	429.7	870	454	416	856	0	0	0	14	
9791	3	NW Wayne County	161.0	998	519	479	993	0	0	3	2	
Wayne County Totals			2,458.6	2,177	1,123	1,054	2,124	0	32	3	18	
Six County Area Totals			16,674.7	52,294	25,933	26,361	50,545	6	734	359	650	

Sources: 1990 Census of Population and Housing, STF 3A on CD-ROM.

Figure II-9

Six County Population Density

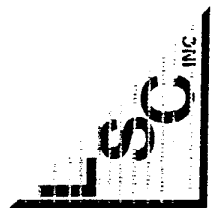
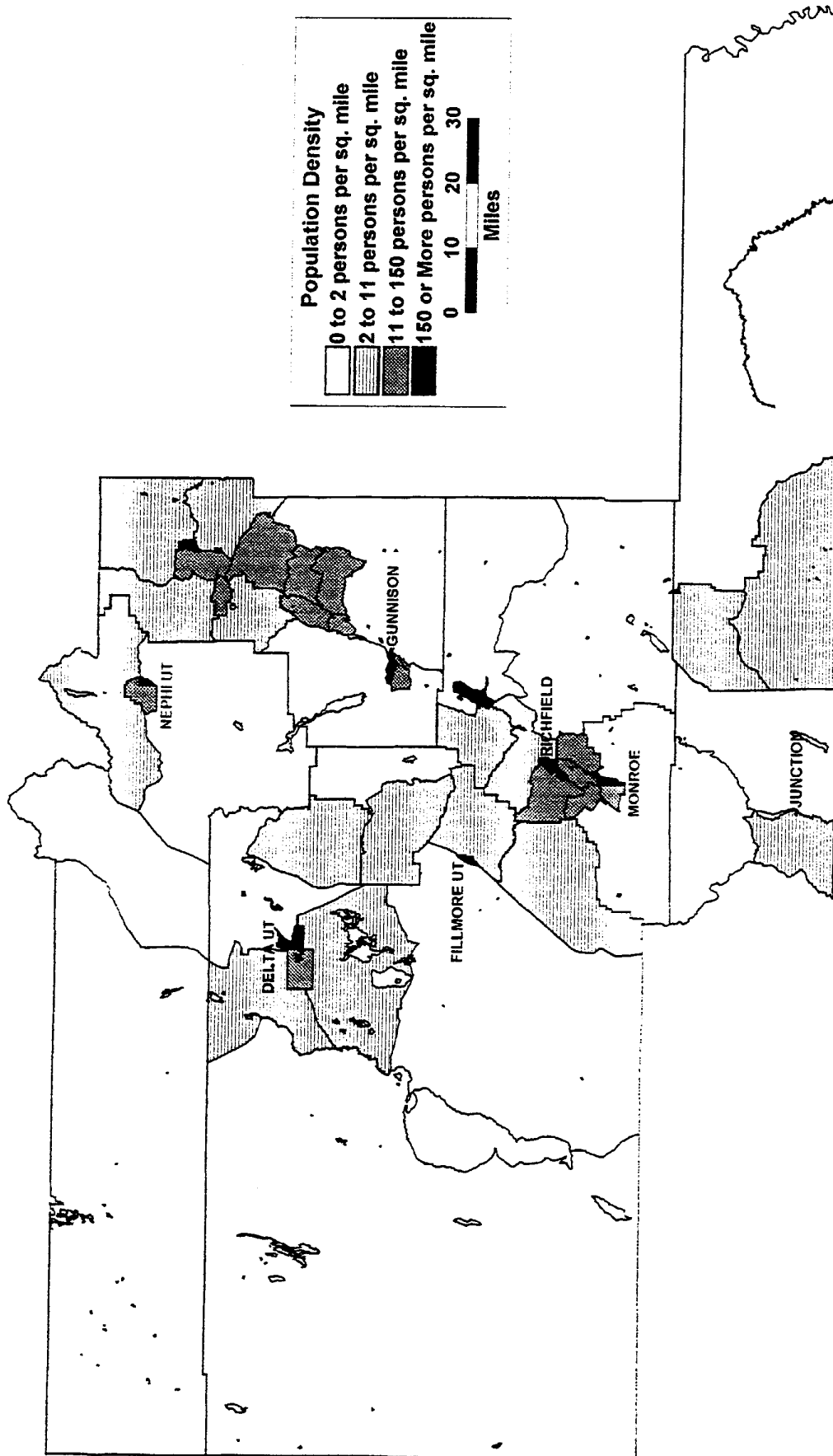
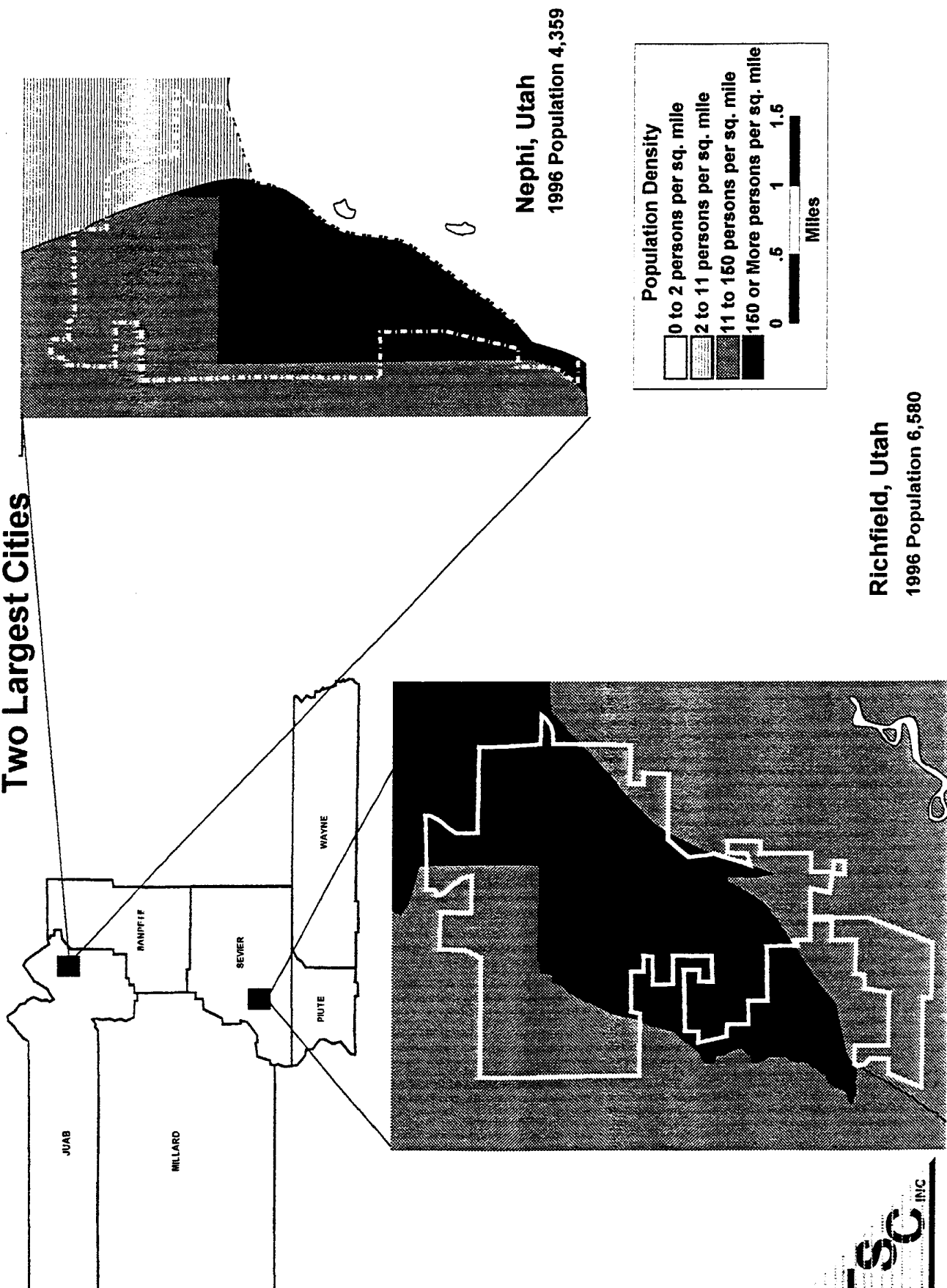


Figure II-10

Six County Area Two Largest Cities



Transit-Dependent Populations

This section provides information on individuals considered by the transportation profession to be dependent upon public transit. In general, these population characteristics preclude most such individuals from driving and increase the dependence on other friends and relatives for transportation.

The four types of limitations which preclude persons from driving are: (1) physical limitations, (2) financial limitations, (3) legal limitations, and (4) self-imposed limitations. Physical limitations may include everything from permanent disabilities such as frailty due to age, blindness, paralysis, or developmental disabilities to temporary disabilities such as acute illnesses and head injuries. Financial limitations essentially include those persons unable to purchase or rent their own vehicle. Legal limitations refer to such limitations as persons who are too young (generally under age 16) or those persons whose privileges have been revoked (DUI, etc.). The final category of limitation includes those people who choose not to own or drive a vehicle (some or all of the time) for reasons other than those listed in the first three categories.

The census is generally capable of providing information about the first three categories of limitation. The fourth category of limitation is generally recognized as representing an insignificant proportion of transit ridership. Table II-8 presents the regional census statistics including zero-vehicle households, youth population, elderly population, mobility-limited population, and below poverty population. These types of data are important to the various methods of demand estimation presented later in Chapter V.

The total population of youth aged 10 to 15 years for the Six County Area was 7,485 person in 1990, representing 14.3 percent of the total population. The largest number of youth reside in Sanpete County (2,268), followed by Sevier County (2,232). Although Wayne County has the second lowest number of youth, compared to the other five counties, it has the highest percentage of persons in that age group, 15 percent of the total population. The areas with highest numbers of youth include eastern Juab County, northeastern Millard County, and northeastern Sanpete County.

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Table II-8
Transit-Dependent Population Characteristics
For the Six County Area by Census Block Groups

Census Tract	Census Block Group	Area Description	Land Area (sq. mi.)	Zero-Vehicle Households #	Zero-Vehicle Households %	Total # of Households	Total # of Youth Ages 10-15 #	Total # of Elderly 65 & over #	Mobility-Limited Population #	Below-Poverty Population #	Total Population (Persons)
Juab County											
9731	1	NE Juab County	272.5	2	0.9%	215	187	84	18	159	876
9731	2	N and W of Nephi	17.6	0	0.0%	400	204	224	14	87	1,303
9731	3	Central Nephi	0.7	11	3.1%	359	133	139	12	134	1,121
9731	4	South Nephi	1.4	19	5.0%	379	153	170	44	27	1,236
9731	5	SE Juab County	640.0	0	0.0%	152	86	64	14	75	494
9732	1	Central Juab County	449.2	24	10.1%	237	54	109	12	86	613
9732	2	West Juab County	2,003.3	5	3.9%	128	0	0	3	36	174
Juab County Totals											
			3,384.6	61	3.3%	1,870	817	790	117	604	5,817
Millard County											
9741	1	S & E of Oak City	181.4	0	0.0%	194	112	68	15	25	738
9741	2	NE of Delta	264.8	0	0.0%	133	82	39	0	48	489
9741	3	North Delta	6.2	5	1.1%	472	193	168	8	239	1,533
9741	4	South Delta	3.8	44	9.7%	455	279	142	10	90	1,610
9742	1	NW of Delta/N of Hinckley	205.1	12	4.9%	244	150	69	9	195	931
9742	2	S of Delta and Hinckley	302.4	9	3.7%	244	132	98	12	106	840
9742	3	W Millard County	3,594.0	6	6.7%	90	28	113	0	137	258
9742	4	Delta	23.4	11	3.4%	323	152	218	20	174	1,062
9743	1	Scipio area	145.3	0	0.0%	89	40	59	7	76	281
9743	2	Holden area	167.0	2	1.3%	150	51	94	4	84	484
9743	3	E of Fillmore	129.7	22	6.1%	361	148	153	22	193	1,124
9743	4	Central Fillmore	2.2	14	4.7%	297	138	146	21	91	895
9743	5	S & W of Fillmore & I15	1,282.4	0	0.0%	73	36	20	0	35	301
9743	6	Kanosh area E of I15	271.6	16	6.0%	265	129	157	5	76	787
Millard County Totals											
			6,579.3	141	4.2%	3,390	1,670	1,354	133	1,569	11,333
Plute County											
9801	1	East Plute County	381.7	0	0.0%	71	59	34	6	61	292
9801	2	SW Plute County	115.3	7	3.5%	198	63	122	15	93	534
9801	3	NW Plute County	260.2	10	5.5%	181	49	92	9	114	451
Plute County Totals											
			757.3	17	3.8%	450	171	248	30	268	1,277
Sanpete County											
9721	1	NE Sanpete County	202.1	3	1.2%	241	119	101	32	113	819
9721	2	Fairview area	3.7	8	4.4%	180	76	89	3	91	589
9721	3	W of Fairview & Mt. Pleasant	33.4	6	2.3%	263	163	112	12	142	907
9721	4	E of Mt. Pleasant	108.3	12	6.1%	198	103	95	15	125	655
9721	5	Central Mt. Pleasant	0.6	14	4.1%	338	87	184	12	146	883
9721	6	Spring City & area SE	84.6	11	3.5%	311	119	126	19	187	934
9722	1	NW Sanpete County	141.6	5	2.6%	194	88	84	18	88	632
9722	2	Mononi area	13.2	5	1.4%	368	188	212	17	176	1,196

Table II-8
Transit-Dependent Population Characteristics
For the Six County Area by Census Block Groups

Census Tract	Census Block Group	Area Description	Land Area (sq. mi.)	Zero-Vehicle Households #	Zero-Vehicle Households %	Total # of Households	Total # of Youth Ages 10-15 #	Total # of Elderly 65 & over #	Mobility-Limited Population #	Mobility-Limited Population %	Below-Poverty Population #	Below-Poverty Population %	Total Population (Persons)
9722	3	Wales & surrounding area	86.8	11	8.0%	137	64	71	5	1.1%	65	14.2%	458
9723	1	SW Sanpete County	346.2	4	2.5%	162	78	48	9	1.7%	71	13.5%	525
9723	2	N Gunnison	5.1	12	3.3%	367	229	170	23	1.9%	136	11.5%	1,186
9723	3	S Gunnison	10.3	9	2.9%	313	105	105	13	1.4%	206	22.6%	913
9724	1	E Ephraim	36.9	34	7.0%	485	177	125	21	1.0%	447	21.4%	2,093
9724	2	W Ephraim	24.0	40	9.4%	427	183	151	17	1.2%	498	35.5%	1,401
9725	1	E Mani & area E	46.6	24	7.1%	337	163	180	33	3.0%	268	24.3%	1,102
9725	2	W Mani	9.1	11	3.0%	370	203	175	15	1.3%	224	18.7%	1,195
9725	3	SE Sanpete County	434.0	13	5.8%	225	123	120	10	1.3%	193	25.0%	771
Sanpete County Totals			1,566.4	222	4.5%	4,916	2,268	2,148	274	1.7%	3,176	19.5%	16,259
Sevier County													
9751	1	NE Sevier County	419.0	10	4.7%	211	107	91	10	1.4%	70	9.8%	712
9751	2	N Salina	6.2	12	3.7%	325	153	135	16	1.7%	98	10.3%	955
9751	3	SW Salina	5.7	16	4.7%	337	139	136	19	1.9%	202	19.7%	1,027
9751	4	NW Sevier County	97.8	2	0.7%	292	184	96	19	1.9%	73	7.1%	1,026
9752	1	Sigurd & area W	94.0	7	3.0%	234	109	92	6	0.8%	119	16.2%	736
9752	2	SE Sevier County	768.9	7	7.8%	90	59	35	9	2.6%	57	16.7%	341
9752	3	Glenwood & Annabella area	27.7	5	1.6%	305	190	114	8	0.7%	196	17.6%	1,116
9753	1	Area N & W of Richfield	51.7	0	0.0%	249	145	126	0	0.0%	85	10.0%	850
9753	2	N Richfield	0.3	38	11.1%	342	128	116	34	3.4%	75	7.5%	1,002
9753	3	Central Richfield	0.5	0	0.0%	258	97	132	8	1.0%	106	13.1%	811
9753	4	S Richfield	0.9	24	5.8%	411	189	131	48	3.9%	125	10.2%	1,226
9754	1	NE Richfield area	4.4	14	6.4%	220	133	153	0	0.0%	128	14.3%	897
9754	2	E Richfield area	0.5	14	3.7%	380	98	142	22	2.3%	195	20.4%	958
9754	3	SE Richfield area	14.7	2	1.3%	154	64	65	0	0.0%	42	8.9%	471
9755	1	NW Elsinore area	17.5	9	4.5%	200	95	89	18	3.0%	153	25.2%	607
9755	2	SW Sevier County	384.0	8	3.6%	221	97	109	11	1.5%	145	19.8%	731
9755	3	NW Monroe area	10.2	11	2.8%	397	128	206	27	2.4%	264	23.2%	1,137
9755	4	N Monroe area	4.7	13		285	117	128	17	2.1%	126	15.2%	828
Sevier County Totals			1,908.4	192	4.6%	4,911	2,232	2,096	272	1.8%	2,259	14.6%	15,431
Wayne County													
9791	1	E Wayne County	1,867.9	4	4.5%	88	42	28	5	1.6%	87	28.2%	309
9791	2	SW Wayne County	429.7	8	2.4%	338	93	168	27	3.1%	80	9.2%	870
9791	3	NW Wayne County	161.0	7	2.6%	274	192	140	9	0.9%	186	18.6%	998
Wayne County Totals			2,458.6	19	2.7%	700	327	336	41	1.9%	353	16.2%	2,177
Six County Area Totals			16,674.7	652	4.0%	16,237	7,485	6,972	867	1.7%	8,229	15.7%	52,284

Source: 1990 Census of Population and Housing, STF 3A on CD-ROM.

Region-wide, elderly persons (age 65 or older) represent 13.3 percent of the total population. Figure II-11 graphically illustrates the distribution of elderly persons across the region. Generally, the largest numbers of elderly persons are found in the cities and towns, such as Fillmore, Meadow, Kanosh, Ephraim, Manti, Nephi, and Moroni. The southwest corner of Wayne County, south of Bicknell and Torrey and the area south of Ephraim and Manti are also areas of high elderly populations. These areas of high elderly concentration are important areas for senior service programs. A general trend across the United States is that the elderly population has been increasing as a proportion of the total population.

The mobility-limited population, as a whole, represents approximately two percent of the region's total population. Of that two percent, approximately 75 percent of those are over the age of 65. In other words, the non-elderly, mobility-limited population represents less than one percent of the total population. As Figure II-12 illustrates, the population of mobility-limited persons is highest in the following areas:

- Area northeast of Fairview
- Area from Spring City south to Manti
- Area east of Fillmore to Redmond and Sigurd
- Hinckley and Delta urban areas
- Monroe and Elsinore areas

Low-income persons tend to depend on transit to a greater extent than persons with a high level of disposable income. Based on the 1990 U.S. Census, the average per-capita income (year ending 1989) for each county was as follows: \$8,332 in Juab County, \$8,574 in Millard County, \$8,160 in Piute County, \$7,585 in Sanpete County, \$8,615 in Sevier County, and \$7,692 in Wayne County. Figure II-13 shows the density of the low-income population within the study area. The portion of the population living below the poverty level within the region was nearly 16 percent. Juab County had the lowest proportion of below-poverty persons at 10.4 percent, while Piute County had the highest, at 21 percent. The highest percentages of below-poverty populations (over 35 percent) were found in two areas—the area surrounding Ephraim in Sanpete County and the western portion of Millard County.

Figure II-11

Six County Elderly (60+) Population Density

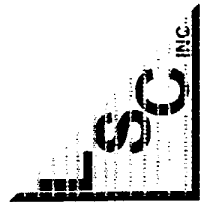
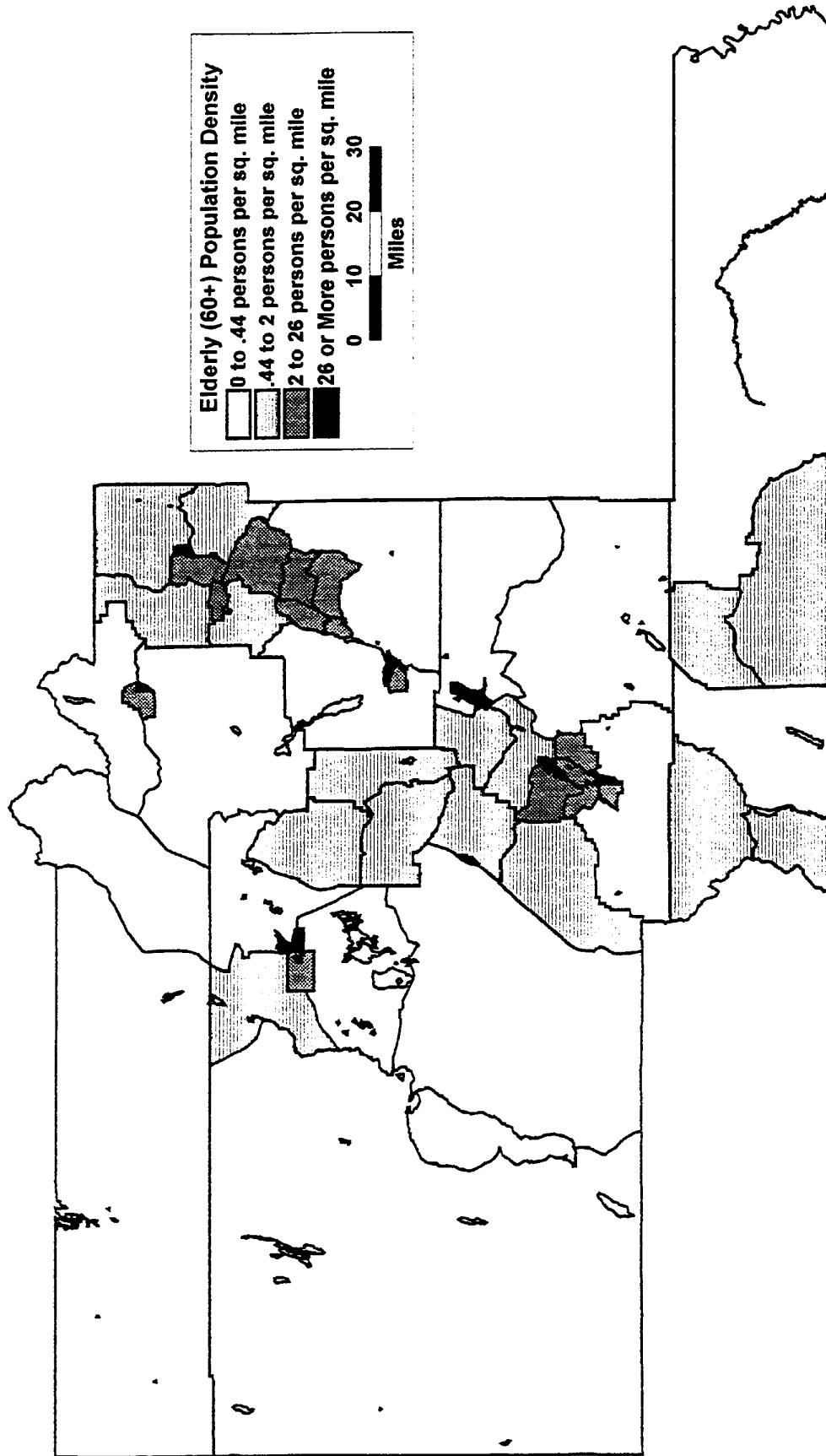
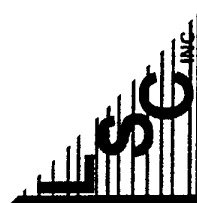
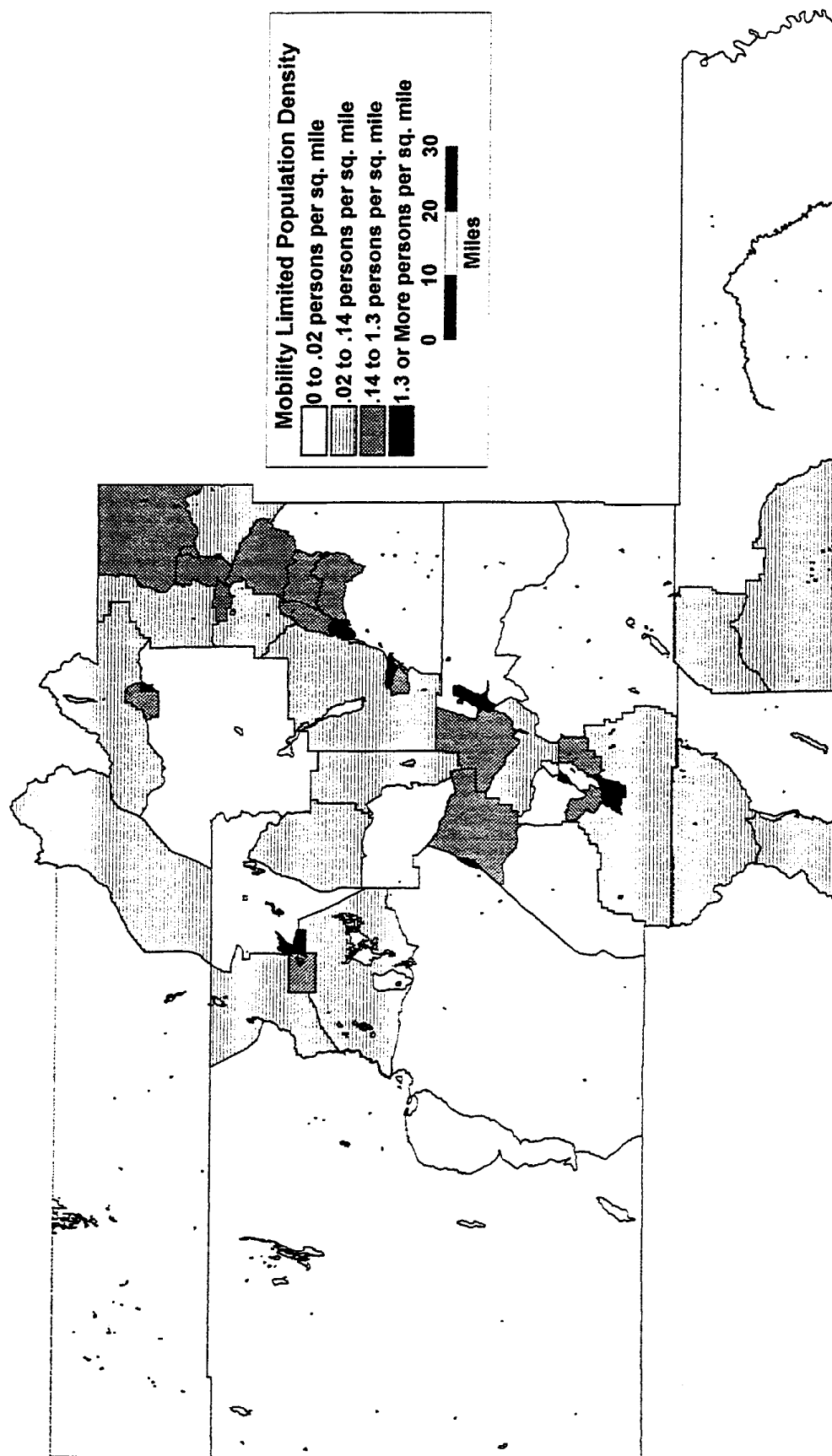


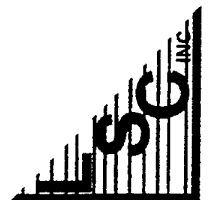
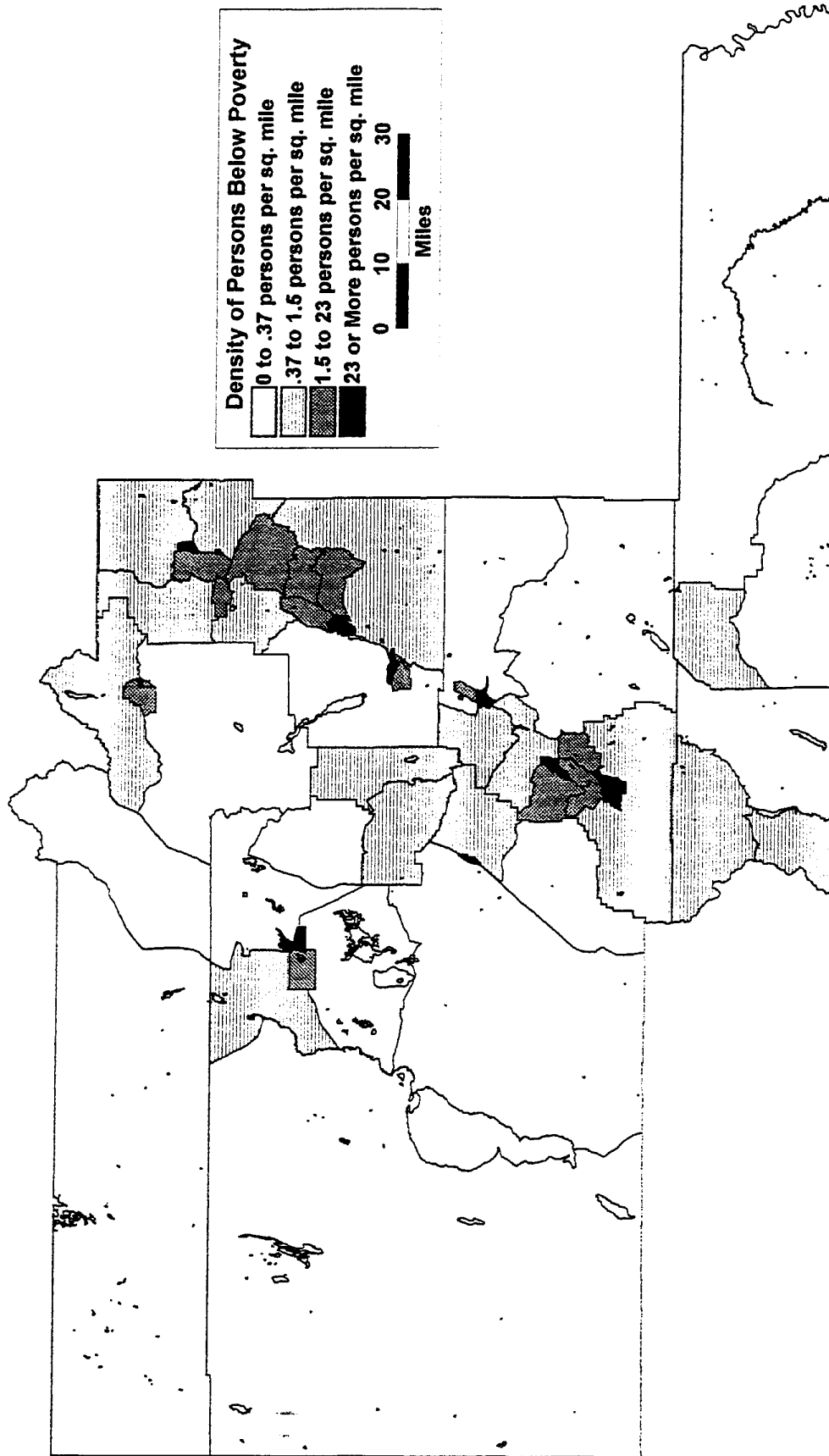
Figure II-12

Mobility Limited Population Density



Density of Persons Below Poverty

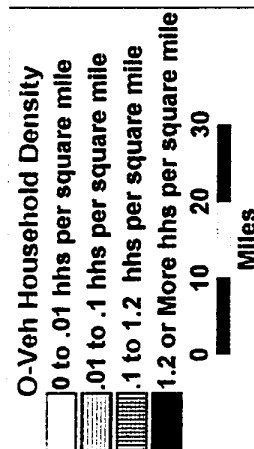
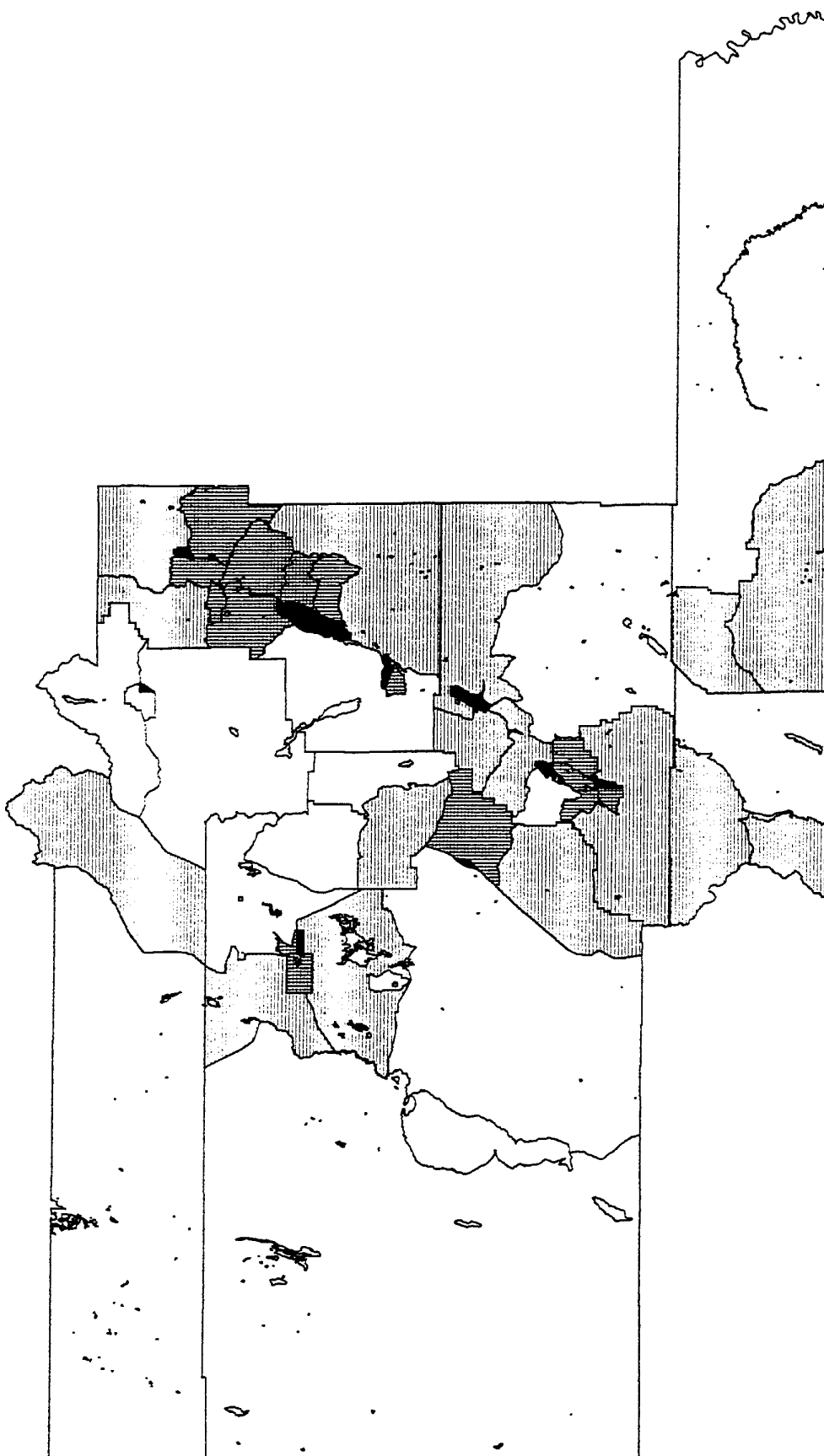
Figure II-13



The last census information related to "transit-dependent" persons is the distribution of households without their own vehicle. That distribution is shown for the Six County Area in Figure II-14. The census indicates 652 of the region's 16,237 households did not have a vehicle in 1990, representing four percent of the total households within the six counties. As indicated in Figure II-14, zero-vehicle households are localized in a few areas, including the Ephraim area and the Hinckley and Delta areas.

Figure II-14

Density of 0-Vehicle Households



Population Projections

Population trends for the Six County Area are shown in Table II-9. Overall trends parallel known trends for the state, including a slowdown during the middle to late 1980s. Since the early 1990s, the state has experienced an economic and population boom, which is also reflected in the Six County population trends. Juab and Sanpete Counties are projected to be the growth leaders at 2.4 percent for the annual rate of population change.

Table II-9 Six County Population Trends Past and Future									
County	Population Estimates and Projections								Annual Rate of Change
	1980	1990	1995	2000	2005	2010	2015	2020	1990-2020
Juab	5,530	5,817	7,150	8,188	8,871	9,924	11,022	11,846	2.40%
Millard	8,970	11,333	11,900	12,908	13,580	14,738	15,910	16,647	1.29%
Piute	1,329	1,277	1,400	1,670	1,784	1,938	2,077	2,164	1.77%
Sanpete	14,620	16,259	19,200	22,362	24,460	27,568	30,799	33,247	2.41%
Sevier	14,727	15,431	17,300	19,618	21,252	23,752	26,339	28,245	2.04%
Wayne	1,911	2,177	2,300	2,621	2,851	3,207	3,586	3,883	1.95%
<i>Source: 1980 & 1990 U.S. Census; Six County Governor's Office of Planning and Budget, November 1997.</i>									

Economy

Table II-10 shows the available census information on employment by county and for the region as a whole. Based upon the number of employees, the four largest sectors of the Six County Area are Retail Trade (18.0 percent), Educational Services (12.4 percent), Agriculture (12.3 percent), and Construction (7.5 percent). In all counties except Piute County and Wayne County, retail trade represents the majority of employment. Agriculture represents over 20 percent of employment in

Wayne and Piute Counties. Sanpete County employs the highest percentage of educational services due to the college and vocational services offered.

Table II-10
Employment by Sector of the Economy

Sector of the Economy	Employed Persons 16 Years and Older										Six County Totals	
	Juab County	Millard County	Plute County	Sanpete County	Sevier County	Wayne County					#	%
	#	%	#	%	#	%	#	%	#	%	#	%
Agriculture, forestry, and fisheries	175	7.4%	594	14.1%	127	30.0%	764	14.1%	490	8.7%	175	22.0%
Mining	50	2.1%	65	1.5%	0	0.0%	323	6.0%	289	5.1%	2	0.3%
Construction	224	9.4%	323	7.7%	27	6.4%	362	6.7%	399	7.1%	80	10.1%
Manufacturing, non-durable goods	251	10.6%	80	1.9%	30	7.1%	585	10.8%	191	3.4%	45	5.7%
Manufacturing, durable goods	116	4.9%	165	3.9%	9	2.1%	106	2.0%	214	3.8%	47	5.9%
Transportation	70	2.9%	165	3.9%	18	4.2%	203	3.7%	361	6.4%	14	1.8%
Communications and other public utilities	108	4.5%	592	14.1%	6	1.4%	145	2.7%	151	2.7%	17	2.1%
Wholesale trade	128	5.4%	79	1.9%	5	1.2%	100	1.8%	186	3.3%	20	2.5%
Retail trade	447	18.8%	680	16.2%	62	14.6%	830	15.3%	1247	22.2%	119	15.0%
Finance, insurance, and real estate	35	1.5%	135	3.2%	8	1.9%	193	3.6%	188	3.3%	14	1.8%
Business and repair services	107	4.5%	128	3.0%	6	1.4%	139	2.6%	180	3.2%	12	1.5%
Personal services	72	3.0%	113	2.7%	6	1.4%	116	2.1%	243	4.3%	33	4.2%
Entertainment and recreation services	8	0.3%	54	1.3%	5	1.2%	26	0.5%	70	1.2%	20	2.5%
Health services	128	5.4%	189	4.5%	9	2.1%	253	4.7%	240	4.3%	29	3.6%
Educational services	190	8.0%	504	12.0%	67	15.8%	870	16.1%	615	10.9%	100	12.6%
Other professional and related services	75	3.2%	113	2.7%	8	1.9%	151	2.8%	210	3.7%	15	1.9%
Public administration	194	8.2%	230	5.5%	31	7.3%	251	4.6%	348	6.2%	53	6.7%
Total	2378	100.0%	4209	100.0%	424	100.0%	5417	100.0%	5622	100.0%	795	100.0%

Source: 1990 U.S. Census of Population and Housing, STF 3A on CD-ROM.

Major Employers

Table II-11 presents a table of the region's largest employers. In general, the largest employers are educational facilities, including Snow College and the school districts. The largest employers in the region are Snow College and Moroni Feed Company—both employ over 800 people. Intermountain Power Service Corporation in Millard County is one of the next largest employers with over 500 full-time employees.

Table II-11			
Major Employers			
Employer	Number of FT Employees	City	County
Snow College	819	Ephraim	Sanpete
Moroni Feed Company	800	Moroni	Sanpete
Intermountain Power Service Corporation	520	Delta	Millard
Sevier School District	237	Richfield	Sevier
Mid State Consultants	200	Nephi	Juab
Millard School District	190	Delta	Millard
South Sanpete School District	161	Manti	Sanpete
Nephi Rubber Products	140	Nephi	Juab
Moroni Processing	135	Moroni	Sanpete
Gunnison Valley Hospital	130	Gunnison	Sanpete
North Sanpete School District	126	Mt. Pleasant	Sanpete
Specialty Clinic	120	Richfield	Sevier
Richfield Care Center	115	Richfield	Sevier
Millard County	110	Fillmore	Millard
Picsweet Mushroom Farms	100	Fillmore	Millard
Millet Concrete Co.	n/a	n/a	Piute
SU Industries	n/a	Circleville	Piute
Morgan Co. School District	n/a	n/a	Wayne
Mt. Nebo Thriftway	n/a	Nephi	Juab
Browning	n/a	n/a	Wayne
Holman Inc.	n/a	n/a	Wayne
Barney Trucking	n/a	Salina	Sevier
Robinson Transport	n/a	Salina	Sevier
Central Utah Correctional Facility	n/a	Gunnison	Sanpete
Source: Economic Development Corporation of Utah, 1998.			

Employment projections for the Six County Area are illustrated in Table II-12 by county. The employment projections include agriculture, private household, and non-farm employment.

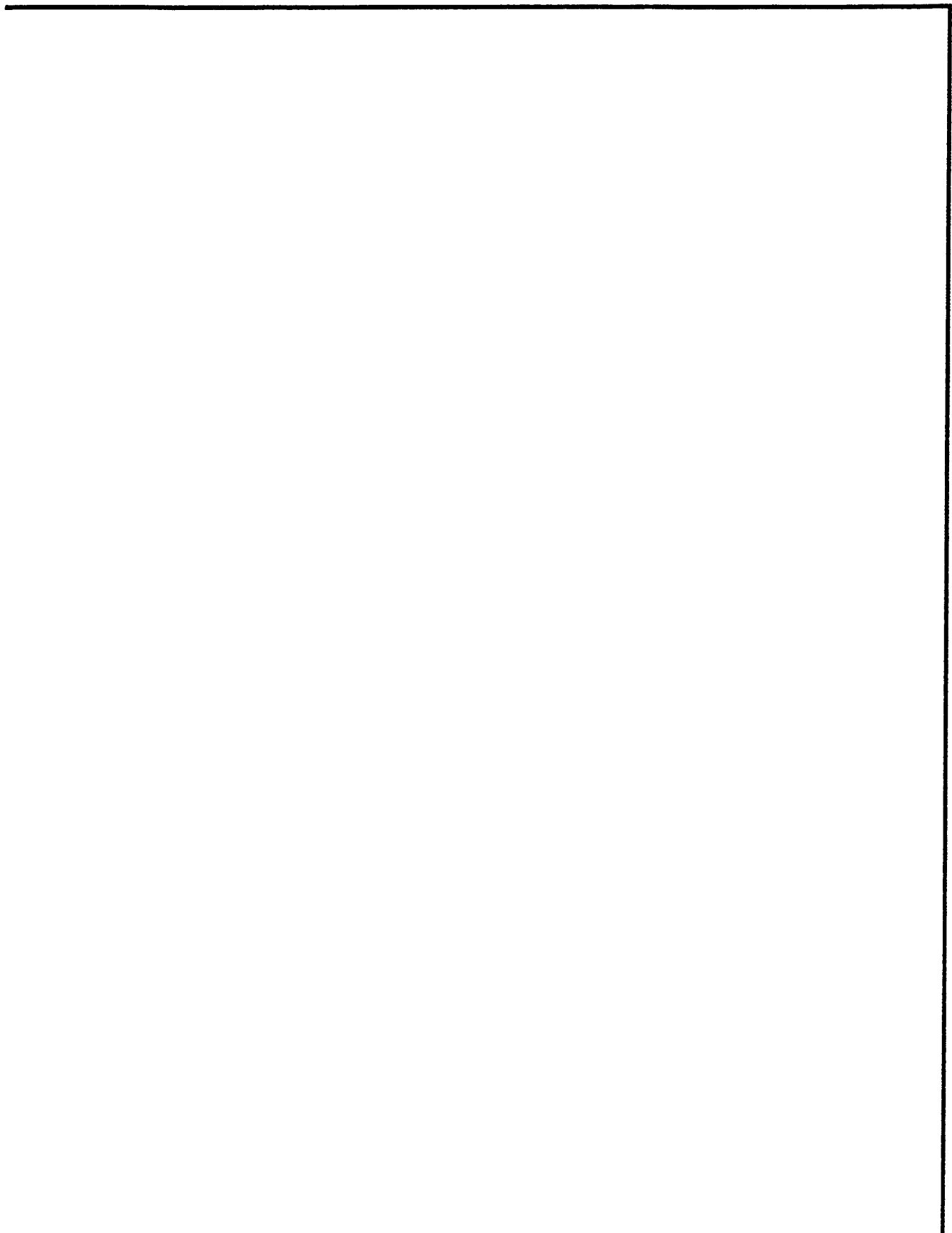
Table II-12 Six County Employment Projections Past and Future									
Employment Estimates and Projections									Rate of Change
County	1980	1990	1995	2000	2005	2010	2015	2020	1990-2020
Juab	2,402	2,391	2,898	3,365	3,719	4,165	4,593	4,911	2.43%
Millard	3,746	5,246	5,569	6,336	6,850	7,501	8,101	8,499	1.62%
Piute	508	412	408	472	517	566	607	633	1.44%
Sanpete	5,512	6,207	7,757	9,274	10,421	11,847	13,237	14,325	2.83%
Sevier	6,268	6,723	7,924	9,324	10,383	11,711	12,994	13,973	2.47%
Wayne	857	930	1,259	1,437	1,573	1,746	1,910	2,027	2.63%
Source: Six County Governor's Office of Planning and Budget, November 1997.									

TRAVEL PATTERNS

Work Transportation Mode

The 1990 U.S. Census yields information useful to this study effort regarding residents' means of transportation to and from work. As indicated in Table II-13, the great majority of the Six County Area's residents drive alone to work (12,874 persons, 69.1 percent). Carpooling is the next mode of choice with 16 percent (2,975 persons) of the workforce choosing that means of transportation. Another 6.4 percent walk to work and 5.4 percent work at home. One percent of the respondents in 1990 reported taking the bus to work. No existing public transportation system is currently in operation which may reflect slightly different figures for 1998.

Table II-13 Mode of Transportation to Work												
Mode of Travel	Employed Persons 16 Years and Older											
	Juab County	Millard County	Piute County	Sanpete County	Sevier County	Wayne County	Six County Totals					
	#	%	#	%	#	%	#	%	#	%	#	%
Drove Alone	1,509	64.5%	2,768	66.5%	319	76.5%	3,465	64.8%	4,246	76.3%	567	71.6%
Carpool	508	21.7%	814	19.5%	27	6.5%	903	16.9%	629	11.3%	94	11.9%
Bus	18	0.8%	24	0.6%	0	0.0%	105	2.0%	76	1.4%	1	0.1%
Taxi	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Motorcycle	0	0.0%	19	0.5%	5	1.2%	18	0.3%	23	0.4%	2	0.3%
Bicycle	32	1.4%	2	0.0%	2	0.5%	65	1.2%	50	0.9%	8	1.0%
Walk	152	6.5%	206	4.9%	35	8.4%	455	8.5%	254	4.6%	88	11.1%
Other	17	0.7%	21	0.5%	4	1.0%	35	0.7%	39	0.7%	4	0.5%
Work at Home	104	4.4%	311	7.5%	25	6.0%	300	5.6%	246	4.4%	28	3.5%
Total	2,340	100.0%	4,165	100.0%	417	100.0%	5,346	100.0%	5,563	100.0%	792	100.0%
Source: 1990 U.S. Census of Population and Housing, STF 3A on CD-ROM.												



Existing Transportation Providers

INTRODUCTION

This chapter reviews the existing transportation providers in the Six County Area. The chapter discusses school-related transportation, elderly transportation services, and other providers within the service area.

TRANSPORTATION PROVIDER SURVEY

A Transportation Provider Survey, shown in Appendix A, was sent to all potential providers of transportation service within the Six County Area. This included approximately 25 transportation agencies. Of the 25 surveys sent, 21 responses were received with an 84 percent response rate.

Transportation agencies that received the survey include:

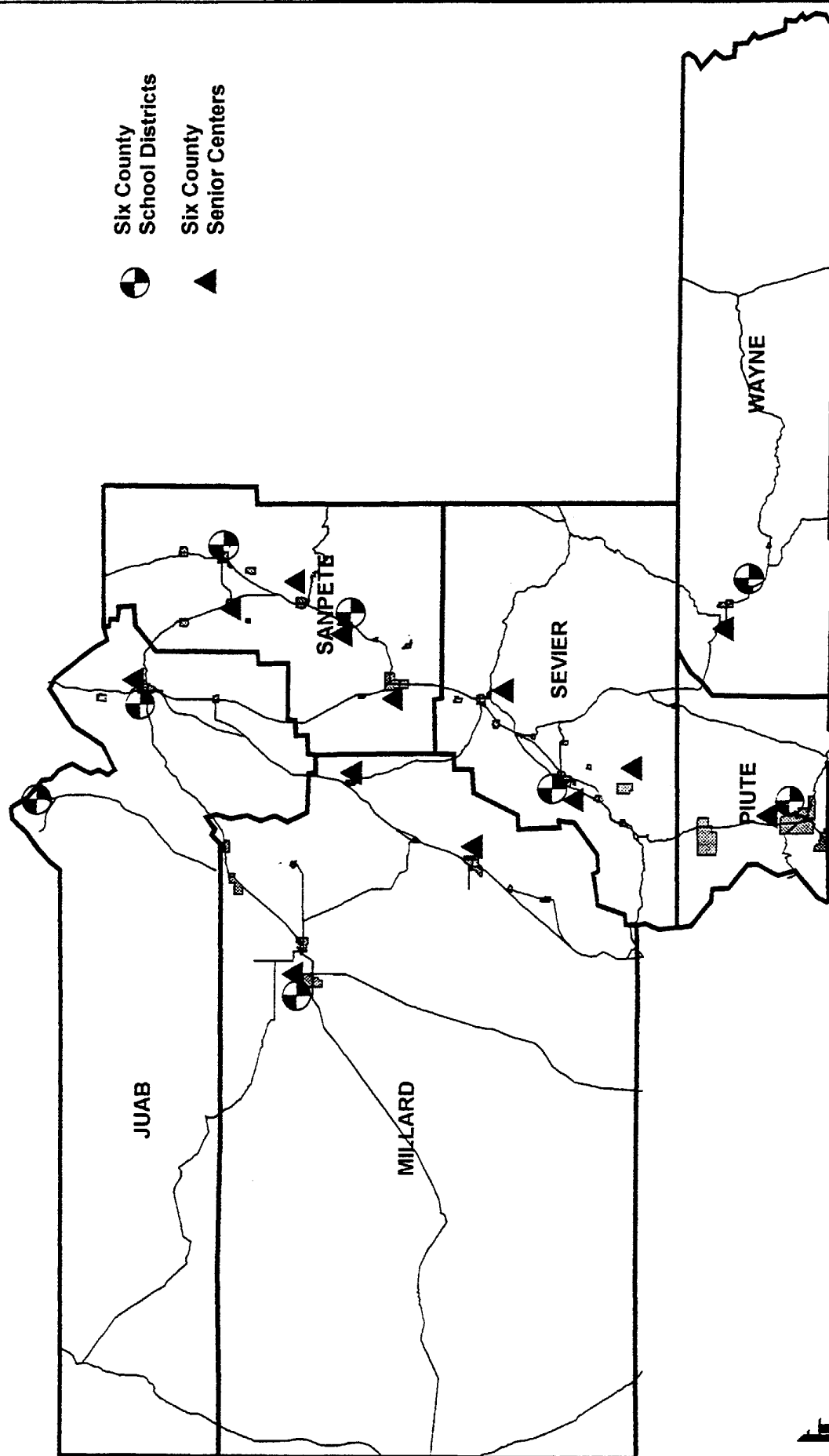
- Juab School District
- Millard School District
- North Sanpete County School District
- Piute School District
- Sevier School District
- South Sanpete School District
- Tintic School District
- Wayne County School District
- Bethphage
- Community Careers
- Snow College
- Crabtree and Harmon
- East Juab Senior Center
- Scipio Senior Center
- West Millard Senior Center
- Pahvant Senior Center

- Moroni Senior Center
- Manti Senior Center
- Ephraim Senior Center
- Gunnison Senior Center
- Wayne Senior Citizens
- Richfield Senior Center
- South Sevier Senior Center
- North Sevier Senior Center
- Piute Senior Center
- Blue Star Taxi
- Head Start

Figure III-1 illustrates approximate locations for existing transportation providers within the Six County Area.

Figure III-1

Six County Transportation Providers



SENIOR CENTERS

Throughout the Six County Area, a total of 13 senior centers provide a variety of services for the elderly population, including transportation for medical, social, and nutrition purposes. Of these senior centers, 11 agencies have responded to the survey and are included in the following analysis. These agencies include Piute County Senior Center, East Juab Senior Citizens, Manti Senior Citizens Center, Moroni Senior Center, North Sevier Senior Center, Richfield Senior Center, Ephraim Senior Center, West Millard Senior Center, Pahvant Senior Center, South Sevier Senior Center, and Gunnison Valley Senior Center. Table III-1 indicates resources available in the Six County Area for senior centers.

Table III-1 Senior Center Resources				
Agency Name	Vans	Buses	Part-Time Drivers	Volunteer Drivers
Piute County Senior Center	2	0	0	3
East Juab Senior Citizens	2	0	0	2
Ephraim Senior Center	2	0	0	3
West Millard Senior Center	2	0	1	0
Pahvant Senior Center	2	0	1	0
Manti Senior Center	1	0	0	2
Moroni Senior Center	1	0	0	6
North Sevier Senior Center	2	2	1	8
Richfield Senior Center	1	1	1 (FT)	10
Salina Senior Center	1	0	0	n/a
Wayne County Senior Center	2	0	0	n/a
Gunnison Senior Center	1	0	2	1
South Sevier Senior Center	1	0	0	8
Total	20	3	6	43
Source: 1998 Six County Provider Survey, LSC & Fehr & Peers.				

The senior centers average approximately two vehicles per agency, usually two vans. Some senior centers have a bus and a van available for service. The number of available vehicles from senior centers within the Six County Area is approximately 23, including buses and vans at area agencies. Approximately 50 drivers are used by the senior centers.

Each of these senior centers is discussed in more detail in the following text. Each of the senior centers was contacted with the initial survey and with a follow-up call with no response.

Piute County Senior Center

Operating out of Junction, Piute County Senior Center implements Six County Area Agency on Aging Programs. The center provides educational, social, and recreational opportunities to senior citizens in the county. According to the survey response, the agency operates a demand-response and a fixed-route service. Transportation service is available every second and fourth Friday of the month, from 8:00 a.m. to approximately 5:00 p.m. or until finished with all trip destinations. The closing time depends upon when the riders finish with their medical and shopping trips or other planned activities. The cost for the service is an agreed donation depending on the destination and purpose.

The center operates two vans for their 39 clients and provides transportation to medical appointments, shopping, senior center meals, senior activities, and recreational activities. Piute Senior Center uses three volunteer drivers. The center provided 684 passenger-trips during Fiscal Year 1996, approximately 800 passenger-trips in 1995, and approximately 1,100 in 1994. According to the Senior Center Administrator, one reason for the decline in ridership over the past few years is due to the increasing number of deaths for senior citizens in the area.

Piute County Senior Center provides approximately 57 round-trips per month and approximately 700 vehicle-miles per month. Given these statistics, the center's performance is 0.08 passengers per vehicle-mile. Funding for the agency's transportation originates from Title III (OAA) and from the state. The senior center

indicated that current client transportation needs were being adequately met by the agency's services.

East Juab Senior Citizens

The East Juab Senior Citizens Agency operates from Nephi and serves the areas of Levan, Nephi, and Mona. The primary purpose of the agency is to provide transportation services for the elderly, for senior citizens activities, and for home-delivery meals. The agency transports their clients to and from the senior center, shopping, and medical trips. They also provide transportation for elderly recreation trips which they pay for individually. The agency reported they usually provide a fixed-route service with schedules, unless it is a recreation trip. The service is available every Wednesday and the first and third Thursday of the month. The service times vary depending on the day of operation. However, in general, they operate from 8:00 a.m. to approximately 3:00 p.m. The agency does not charge a fare for service; however, a donation box is available.

East Juab Senior Citizens have two vans and two volunteer drivers available for their 30 elderly clients. The agency reported 1,418 passenger-trips in 1996, 1,499 trips in 1995, and 1,703 trips in 1994. The 1996 figures average approximately 118 one-way passenger-trips per month and over 350 vehicle-miles of service. Using these figures, the agency's performance is approximately 0.33 passengers per vehicle-mile. Funding for the East Juab Senior Citizens transportation is from Six County Funds from the Six County Association of Governments and from the state.

The agency reported current client transportation needs are not being met. They are in need of a new accessible bus for their elderly, handicapped clients. With the new accessible bus, the needs of their clientele would be met.

Ephraim Senior Center

Ephraim Senior Center operates out of Ephraim in Sanpete County. The center provides a nutrition van (meals-on-wheels) and trips for senior citizens. According to the survey response, the agency provides mainly a demand-response system.

Outings are also planned, but not on a schedule. No fare is charged for the service; however, donations are suggested.

The senior center operates two vans with three volunteer drivers for their 20 elderly clients. It is reported the center serves 40 meals per day for their clients. The agency reports that their current client transportation needs are not being met. Additional services needed are an accessible-van for their handicapped, elderly clients. A lack of funding is the reason a van has not been purchased to this date.

West Millard Senior Center

The West Millard Senior Center operates out of Delta and serves the areas of Abraham, Sugarville, Sutherland, Hinckley, Oasis, Deseret, Lernington, Lyndyll, and Oak City. The primary purpose of the agency is support for elderly activities and to provide transportation to those activities. West Millard Senior Center provides some demand-response trips and has a scheduled route to Provo on the second and fourth Friday of each month. The agency suggests a \$5.00 donation for the trips to Provo.

The transportation services are publicized and offered to anyone. One van and one bus are available for services with one part-time driver. Funding for the West Millard Senior Center originates from Millard County, Six County Association of Governments, and also the federal government.

Pahvant Senior Center

Fillmore is the central operating base for the Pahvant Senior Center. The senior center serves the areas of Fillmore, Meadow, Kanosh, Holden, Flowell, and Scipio. The primary purpose of the senior center is to provide services for the elderly and to provide meals-on-wheels for the elderly. The agency has scheduled trips to Provo once a month from Richfield and Fillmore. They also have recreational trips that vary each month.

The Pahvant Senior Center operates one van and one bus with one part-time driver available. The agency reported the current client transportation needs are

not being met. One specific need identified was the need of a wheelchair ramp in their bus. The reason for not providing these services is due to the lack of available funds at the center. A client roster is maintained at the senior center and they have approximately 75 to 100 persons per month. Funding for the Pahvant Senior Center is from Millard County, Six County Association of Governments, and fare-box revenues.

Manti Senior Citizens Center

Operating out of Manti, the Manti Senior Citizens Center's primary purpose is the delivery of home delivered and congregate meals for senior citizens. According to the survey response, the agency operates a demand-response service for their clients. Transportation services are provided whenever needed during regular business hours to medical appointments and for recreational trips. A fee is charged for the service and is determined by the length of the trip.

The Manti Senior Citizens Center operates one van and has two volunteer drivers. The center maintains a client roster of approximately 20 to 25 different clients. The Manti Senior Center reports that the current client transportation needs are being met. However, some clients may need to go somewhere, but the van has limited seating for only 14 people. This is primarily a problem for clients traveling to Provo because the van is scheduled for one trip to Provo per month to medical appointments. Lack of funds and drivers are the primary reasons for not providing additional services for the clients.

Moroni Senior Center

The Moroni Senior Center operates from Moroni and serves all of northern Sanpete County. The primary purpose of the agency is to provide services for the elderly. Transportation services are provided for elderly medical, shopping, and senior activities. The agency reported they provide a fixed-route and demand-response service for their clients. The service is available every Monday, Wednesday, and Friday. The agency does not charge a fee for their transportation services.

Moroni Senior Center has one van and six volunteer drivers available for their 80 elderly clients. The agency reported 552 passenger-trips in 1997 with over 8,090

vehicle-miles. Funding for the senior center is from fares/donations, Title III (OAA), county, and the state.

The agency reported current client transportation needs are not being met. They need to provide more days of transportation for their clients. Lack of funds and drivers are the reasons the additional days are not provided.

Sevier County Corporation (North and South Sevier and Richfield Senior Citizens)

The Sevier County Corporation provides transportation service for three senior centers in Sevier County for individuals age 60 and over. These three senior centers are the North Sevier, South Sevier, and Richfield Senior Centers. The corporation operates two 14-passenger vans and two 10-passenger buses for the three senior centers. The vehicles are rotated among the three senior centers. One part-time driver and eight volunteer drivers are available for the three agencies. Usually three vehicles are in service on an average weekday. The corporation reported 2,802 passenger-trips in 1997, with over 20,000 vehicle-miles of service reported for all three centers. Funding for Sevier County Corporation is from fares/donations, Title III (OAA), county, and Center Assessments.

North Sevier Senior Citizens operates out of Salina and serves the areas of Redmond, Aurora, and Salina. The agency provides a reservation-response or demand-response system. Those needing the service call between 24 hours to 30 minutes before service is needed. No fare is charged for the services. The service is available Tuesday through Friday from 11:00 a.m. to 3:00 p.m.

South Sevier Senior Center operates from Monroe, Utah and serves all of south Sevier County. Currently, 10 clients are maintained on the register who use the service for shopping, medical visits, and recreation trips. The senior center operates with one van owned by Sevier County Corporation. The van is stored at the Senior Center in Monroe. One hundred percent of the clientele is elderly.

Operating out of Richfield, Richfield Senior Center assists seniors in everyday living and provides transportation for those services. The agency reports operating on fixed schedules from Tuesdays through Friday. The hours of operation are from

11:00 a.m. to 2:30 p.m. The center does not charge a fare for the service. However, a donation box is available for the passengers. The agency serves the areas of Sigurd, Venice, Glenwood, and Richfield.

Richfield Senior Center operates either one bus or one van owned by Sevier County Corporation for their clientele. The senior center indicated that current client transportation needs were being met by the agency's services. The Richfield Senior Center does maintain a client roster. The van owned by Sevier County Corporation is also used by Richfield Care Center each Monday.

Gunnison Valley Senior Center

The Gunnison Valley Senior Center serves the areas of Axtell, Centerfield, Gunnison, Fayette, and Mayfield. The senior center operates from Gunnison each weekday from 10:00 a.m. to 3:00 p.m. The primary purpose of the agency is to meet the needs of the senior population. The center provides meal delivery and senior services for the area. Gunnison Valley Senior Center operates a fixed-route service for home delivered meals and demand-response service for their senior services. The center does suggest a donation for their transportation services, which depends on the destination location and the amount of miles.

The Gunnison Valley Senior Center reported that their client transportation needs are not being met due to the lack of funds and the need for additional vehicles. The center has two part-time drivers and one volunteer driver available for their clients. One vehicle provides service for the senior center. The agency reported a total of 3,276 vehicle-miles driven in 1996 with 315 one-way passenger-trips. Operating revenues for the senior center are from fares, donations, and Title III funding. This total for 1996 was reported at approximately \$1,600.

Summary of Senior Services Provided

This summary is based only on those survey responses received. At each senior center, two basic services exist—a nutrition van (i.e., Meals-on-Wheels) and transportation to medical facilities, shopping, and organized activities. The senior centers' transportation system runs primarily on a demand-response basis. Outings organized by the centers are planned, but not on a fixed schedule. Transpor-

tation service is usually free of charge; however, donations are requested and appreciated.

Meeting Demand

According to the survey responses, demand for transportation services are generally met by the agencies. However, each senior center stated the needs of the disabled are not adequately provided for in their specific area. The agencies cited that handicapped-accessible buses were necessary and would fulfill many of the disabled needs. The lack of funds at the agencies was the single most common reason they were not able to purchase an accessible vehicle.

Ridership

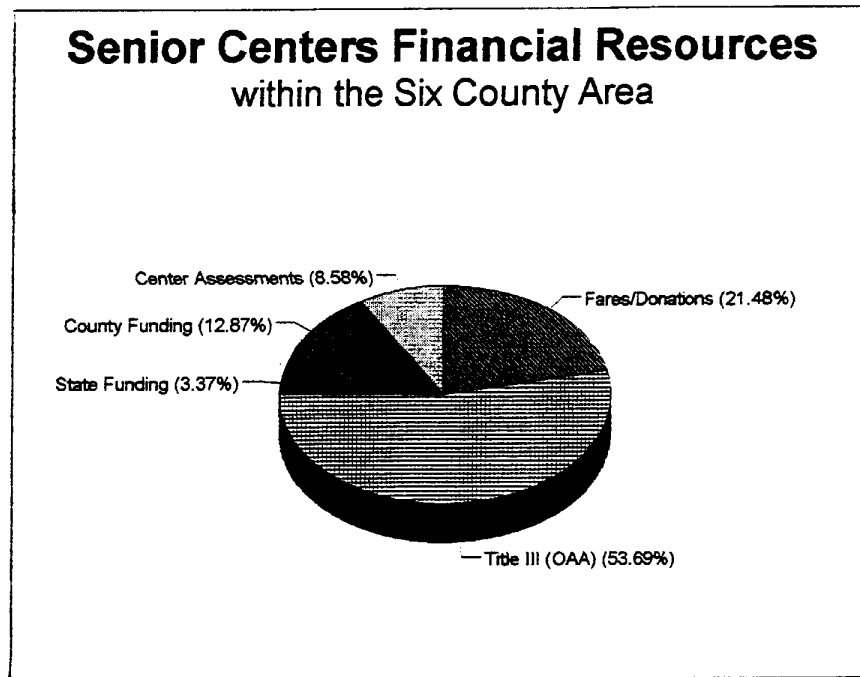
Transportation riders at the senior centers are exclusively elderly persons. From the provider survey responses, most senior centers maintain a client list, ranging from 30 to 100 users depending on the agency.

Funding

Each agency reported several different funding resources. These sources include county funding, the Six County Association of Governments, state, and federal aid. In addition, the services are funded by donation. Not all agencies responding to the Provider Survey provided financial information.

Thirteen senior centers responded to the Transportation Provider Survey. Only six of the centers provided funding information. The total reported operating budget for the six senior centers is approximately \$20,200. However, transportation costs are typically understated and do not include additional overhead costs. Senior centers are primarily funded through Title III (OAA) resources, which includes the development of a comprehensive and coordinated system of supportive services, congregate and home delivered meals, and multipurpose senior centers. An additional 22 percent of operating revenue comes from fares or donations from those who use the service. The remaining 25 percent is collected from county and state funds, as well as Center Assessments. Figure III-1 illustrates the funding sources.

FIGURE III-2



SCHOOL DISTRICTS

The Six County Area has eight school districts in the region. Five transportation provider survey responses were received.

Sevier School District

The Sevier School District operates student transportation within Sevier County, Salina, Richfield, and Monroe attendance areas. The number of vehicles in service on an average weekday is approximately 65. The district owns 32 cars, 4 vans, 36 buses, and 20 trucks, totaling 86 total vehicles. Twenty-three full-time drivers and 29 volunteer drivers are available to drive the vehicles. Approximately 755,000 vehicle-miles were driven during Fiscal Year 1997 with 14,760 one-way passenger-trips.

Suggestions for transportation improvements included public transportation within the county: Salina to Richfield, Monroe to Richfield, and return trips. Also the area technical college would benefit from scheduled public transportation. Lack of funding is the primary reason these services are not provided.

Juab School District

The Juab School District, based out of Nephi, provides student transportation Monday through Friday during the school year. Buses are on route from 7:00 to 8:00 a.m. and from 2:30 to 4:00 p.m. Field trips and sporting event transportation are also provided on an as-needed basis. The service area is generally the eastern half of Juab County.

The Juab School District employs 11 part-time drivers, using a total of 20 vehicles. The district owns eight cars, one van, ten buses, and one truck. No information was available on the number passenger-trips. However, 133,590 vehicle-miles were reported for the 1997 year. The school district reports that all current student transportation needs are being met with regard to attending school.

Wayne School District

The Wayne School District operates Monday through Friday during the school year. Additional weekend activities are also served as needed. The district reports that buses are on route between 7:00 and 8:15 a.m. and 2:30 to 4:00 p.m. Seven part-time drivers operate nine buses for the school district.

Wayne School District's school year is 180 days in length. The school averaged 144,691 vehicle-miles for the 1996 school year. No information was available on the number of passenger-trips provided. The Wayne School District service area includes all of Wayne County, including Bicknell, Loa, and Hanksville.

Millard School District

The Millard School District operates student transportation services Mondays through Fridays during the school year and also for summer school classes, field trips, and sporting activities. The routes run from 7:00 to 8:30 a.m., 11:00 a.m. to 12:00 Noon, and 2:30 to 4:00 p.m. Millard School District has 32 part-time drivers and operates 65 vehicles. These include 12 cars, 41 buses, and 12 trucks.

Millard School District's regular school year is 180 days in length, and they also have summer school. The District reported 504,300 passenger-trips for the 1997 school year with 511,525 vehicle-miles reported for the year. The service area for

Millard School District is all of Millard County. The school district reports that all current student transportation needs are being met with regard to attending school.

Piute School District

The Piute School District serves all of Piute County on fixed routes on weekdays between 7:00 a.m. and 4:00 p.m. There are seven buses in use, with two full-time drivers and five part-time drivers. There was a total of 572 passenger-trips in 1996, with approximately 740 miles traveled in that year. The Piute School District operates solely from Utah State Educational Funds, totaling \$265,000.

Summary of School Districts

Each school district in the Six County Area was contacted initially and then contacted once again with a follow-up call for their input regarding the transit study. The following school districts have not replied:

- North Sanpete County School District
- South Sanpete County School District
- Tintic School District

Of the five school districts within the Six County Area that returned the Provider Survey, approximately 194 vehicles were reported available for transportation. Approximately 100 drivers provide transportation for the five school districts within the Six County Area that responded to the survey. Table III-2 presents the school district information.

Table III-2 School District Resources					
School District	Vans	Cars	Buses	Part-Time Drivers	Full-Time Drivers
Piute School District	0	2	7	5	2
Sevier School District	4	32	36	29	23
Wayne School District	0	0	9	7	0
Millard School District	10	0	41	n/a	n/a
Juab School District	0	12	41	35	0
Total	14	46	134	76	25
<i>Source: 1998 Six County Provider Survey, LSC & Fehr & Peers.</i>					

School districts operate solely on Utah State Education Transportation Funds. Budgets range from \$233,000 annually (Wayne School District) to \$748,000 annually (Sevier School District), depending on the size of the district.

ADDITIONAL RESOURCES

Bethphage Mission West

Bethphage provides services for people with developmental disabilities within the Six County Area. Bethphage provides transportation services Monday through Friday in the morning and afternoon. The agency operates a fixed-route service for their own clients. The Bethphage office operates from Nephi and has primarily three different routes in the Six County Area. Bethphage reports that all clientele transportation needs are being met. One full-time and one part-time driver are available at the agency. The agency reports that three vehicles (buses and vans) are in service on an average weekday. Operating revenue for the agency is from the Utah Department of Transportation and Developmental Disabilities (DSPD) funds.

Head Start

Head Start provides rural child development services including education, medical services, social service information, home visits, and parental education for low

income or disadvantaged families. The service is funded federally. Head Start operates throughout the Six County Area and has four primary bases of operation. Sevier, Piute, and Wayne Counties are operated from Wellington, Utah. For these three counties, transportation services are provided primarily by Crabtree and Harmon, although they do operate four vans and two buses. Service is operated on a scheduled basis almost continuously throughout the day during the school year. There are approximately 40-50 part-time drivers.

Millard County Head Start operates from Fillmore, Utah and operates one bus. The bus is driven by a full-time driver and serves the areas between Fillmore and Kanosh.

Sanpete County Head Start is operated by the Migrant Head Start Program, based in Salt Lake City. There are two centers—one in Mt. Pleasant (operating three buses for 93 children) and one in Gunnison (operating two buses for 45 children).

A fourth base of operation for Head Start is in Juab County and is administered through the Mountainland Head Start. Additional information was unavailable; however, they can be contacted at (801) 375-7981.

Crabtree and Harmon Corporation

Crabtree and Harmon is a private bus service operating out of Blanding, Utah, outside the Six County Area. The company serves primarily San Juan County and Southeastern Utah, but also serves as the primary transportation provider for the Head Start Program in the Six County Area. Crabtree and Harmon offers service to San Juan school district, Head Start programs, and private charters whenever requested by a client. Fares ranges vary depending on the types of trips requested. The company operates 72 buses.

Blue Star Taxi Service

Blue Star Taxi service began operations six weeks ago with two cars and three drivers. In the past six weeks, Blue Star has provided service to Salina (19 trips), Salt Lake City Airport (17 trips), Nephi, Cedar City, Beaver, Richfield, Denver, Grand Junction, Green River, and Las Vegas. The company is family owned, man-

aged, and operated. Service costs approximately \$1.00 per mile and is available 24 hours per day.

Snow College

The Director of Business Services reported that the college currently uses one 47-passenger coach bus for college activities (sports teams, debate). They also use two UTA buses as a campus shuttle.

Resources

Other providers, not including the Six County senior centers and school districts, are listed below. The agencies listed in Table III-3 below do not serve the same clientele—for example, students and faculty only versus the general public. In addition to the resources listed below, Community Careers was contacted for their input but did not return the provider survey.

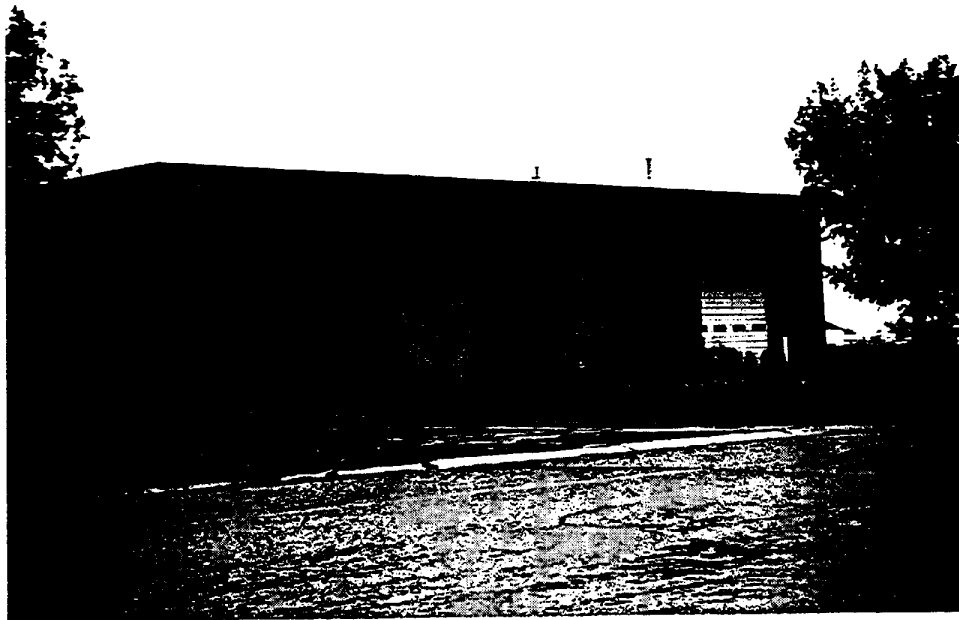
Table III-3 Additional Resources					
Agency	Vans	Cars	Buses	Part Time Drivers	Full Time Drivers
Head Start	4	0	2	40	0
Blue Star Taxi	0	2	0	3	0
Snow College	0	0	3	n/a	n/a
Crabtree and Harmon Company	0	0	72	n/a	n/a
Bethphage	2	0	1	1	1
Total	6	2	78	44	1
<i>Source: 1998 Six County Provider Survey, LSC & Fehr & Peers.</i>					

The Blue Star Taxi Company and Crabtree and Harmon are private businesses that are supported solely by the fees of the user. Head Start is a federally funded program. Bethphage reported their financial resources are from Developmental Disabilities (DSPD) and from the Utah Department of Transportation.

FACILITIES

Although there are not many public transportation facilities in the Six County Area, there is a maintenance facility in Nephi. The facility is adjacent to the Bethphage shops and is used by Bethphage for minor vehicle maintenance. This facility was built to support a public transportation operation, but has had little or no use for several years. The facility has two maintenance bays with vehicle lifts. There is one heavy-duty lift capable of lifting small buses. There is also a bus wash bay. The facility has room for parts storage, dispatching, and offices. Outside vehicle parking space could be provided on the adjacent paved areas, but there is no indoor vehicle storage space other than the maintenance and wash bays. The facility would need some rehabilitation, primarily due to lack of use and minimal maintenance. Fuel storage tanks and waste disposal equipment may be outdated and would require replacement. The facility would have to be furnished with tools, shop equipment, furniture, and other items to support transit operations. Figure III-3 illustrates the Nephi facility.

Figure III-3





CHAPTER IV

Issues and Goals

KEY PERSON INTERVIEWS

As part of the process to identify issues, a series of interviews was held with key representatives of the communities who are involved in some way with transit services. These interviews included elected officials and other government representatives. The interviews were open-ended and provided opportunities for the interviewees to make any comments they wanted or ask questions.

Interviews were scheduled at the beginning of the project. Key persons were also invited to attend the various public meetings described below.

The form of the interview included an introduction to the Six County project and the Consultant Team. The primary tasks of the study were described so that the interviewees could have an understanding of the study objectives. The questions, concerns, thoughts, and ideas that came out of these interviews are presented in this chapter. The comments have been paraphrased to honor the confidentiality of the interview process. Each member of the Six County Association of Governments Executive Board was contacted and asked to answer a series of 10 questions related to transit and public transportation development in the greater Six County area.

Comments received during the telephone interviews are summarized below.

SIX COUNTY ASSOCIATION OF GOVERNMENTS EXECUTIVE BOARD

Existing Issues and Problems in the Six County Area

Very few existing transportation problems were identified by the Board members. Many members stated that the area was too rural to really have any transportation concerns. A few members stated that growth in the area was bringing more commuters and a need for more transportation options within the counties.

Transportation and Economic Vitality

Most of the comments were directed at the transport of goods, rather than of people. Growth of tourism was mentioned and the ability for tourists to move around the area. Some Board members recognized that a better transportation infrastructure would only help the economy of the Six County Area.

Need for Public Transit

The general consensus from the Board members is that there is no need for public transit. The greatest amount of interest was expressed by the northernmost counties, which are home to the larger cities within the study area. The county commissioners and mayors of these areas were generally more open to the idea and need for public transit, citing increases in population and commuters to Utah County and points north.

The Benefit of Public Transit

Most members expressed the Six County Area is too small for anyone to really benefit from public transit. The members did express that the elderly and physically disabled populations would probably benefit the most from public transit. Other beneficiaries identified included those persons who may be located on a public transit route and commuters.

Trends Impacting the Need for Public Transit

Population growth is the major trend over the next 10 years identified by the Board. An influx of population within the Six County Area may increase the need for transit. Technology was another identified trend that may have a possible impact. As technology increases, there is more flexibility in where people are able to work. This allows families and individuals the flexibility of living in a more rural area. The other side of the argument was also presented. As technology increases and people will be able to work from home, there will be less need to travel.

Financial Support

Responses to the question of who should pay for the public transit service varied from taxpayers to government subsidy. When asked if the people of the Six County

Area would financially support transit, answers were both positive and negative from the Board members.

Priorities and Goals

Several different ideas on what the primary goals of a transit system should be were identified. The responses from the Board members included:

- Safety
- Availability
- Accessibility
- Link communities together
- Serve enough places to serve the majority of the people
- Let people define where the routes should go
- Track the growth and development of the Six County Area
- Provide more transportation for senior citizens
- Service connecting all of the communities
- Consider all areas in the transit route system
- Operate a small bus line, twice weekly
- Focus on those persons who need transportation the most
- Help people in community decide if they want transportation or not

MAYORS AND COUNTY COMMISSIONERS

In addition to the Six County Association of Governments Executive Board interviews conducted by telephone, a second interview process was conducted. The second interview process consisted of a survey mailed to each person. The purpose of the second survey was to gain response from every mayor and county commissioner in the Six County Area. Appendix B presents the survey mailed to each person. A total of 56 people were contacted and asked to answer 10 questions, similar to those asked of the Six County Executive Board. A follow-up contact was made to ensure the surveys were received by each person. Thirteen elected officials of the 56 have responded to the survey. Appendix B also contains a list of those mayors and county commissioners who received the survey and who responded. Although answers did not differ greatly among the interviewees, a summary of responses is included below.

Existing Problems

There were few major issues related to transit identified by the respondents. As in the previous survey with the Six County Association of Governments Executive

Board, respondents identified growth as a problem, but did not necessarily link growth to the need for a transit system.

Transportation and Economic Vitality

There were few comments related to the issue of transportation and economic vitality. Most people responding to the question indicated that transportation does not really affect the economic vitality in the area.

Need for Public Transit

A need for transit was identified to transport people to and from the Six County Area and metropolitan areas north, such as Provo and Salt Lake City. This need was expressed particularly for the town of Nephi, which is experiencing growth in the commuter population.

The Benefit of Public Transit

Almost every respondent answered that the greatest benefit of transit would be for the elderly and disabled population. Transit would benefit these populations both within the Six County Area for daily activities, as well as for transportation between the Six County Area and the Wasatch Front.

Financial Support

The general opinion of mayors and county commissioners in the area was that a transit system would not be supported by the citizens of the Six County Area. When asked who should be responsible for supporting transit, they identified sales taxes, property taxes, government subsidy, or a combination thereof.

Priorities and Goals

Priorities and goals that were identified included:

- Implement a shipping rail system before a transit system
- Utilize the current programs that are in place
- Provide service as far south as St. George
- Do not add any more programs without funding
- Include outermost communities
- Keep in touch with elected officials in the area
- Focus on the elderly and disabled

ELECTED OFFICIALS

Elected officials were contacted by telephone for the second survey. Each official was asked for their input regarding a transit system in the Six County Area. The following officials were contacted:

- Representative Bradley Johnson
- Representative Mike Styler
- Representative Tom Hatch (Mary Taylor responding)
- Representative Bill Wright
- Senator Leonard Blackham
- Senator Orrin Hatch
- Representative James Hansen (Steve Peterson responding)
- Representative Merrill Cook
- Representative Christopher Cannon (Mike Mower, District Director responding)

Comments have been received from four of the elected officials—Rep. Cannon, Rep. Hansen, Rep. Mike Styler, and Rep. Bill Wright. Comments received from elected officials were similar in nature. Each of the respondents believed that since the local municipalities and counties have the best knowledge of their situations, they would also be best equipped to decide the role of transit in the community.

Representative Mike Styler was more specific in saying that there is a lack of public transportation in the area, but given the slow growth of the area, transit may not be necessary over the next 10 years. Rep. Styler believed that the service should be operated through the financial support of the users.

Representative Wright cited geography, rather than transportation, as the problem in the Six County Area. As with Rep. Styler, he was unable to identify the need for transit over the next 10 years, and was confident that people have adequate transportation methods at the present time.

PUBLIC INPUT

An initial meeting was held with the Transportation Advisory Committee (TAC) on April 28, 1998. The consultants briefed the committee on the study process to be undertaken. Key persons and agencies involved with or affected by public transit services were identified to the LSC Team. Major issues and concerns for the Six County Area that may affect public transportation were discussed. The TAC also

discussed the public questionnaire to enhance public input from each community.

Issues which were identified at this meeting included:

- Need access to medical services, employment, educational facilities, social activities for elderly, disabled, low-income population.
- Coordinated transportation is important.
- Maximum and effective usage of equipment and available resources.
- Primary need for transportation: both within the Six County Area and some kind of link to the Wasatch Front.
- Funding:
 - How receptive are people to a tax increase?
 - Explore the use of Medicaid.
 - New transportation bill could provide funding.
- Organizational/institutional issues between six counties.
- Need a champion(s) to promote public transportation.
 - Possibly a six-member board with one person from each county to provide local oversight of funds.
- School buses can be used for other purposes such as public transportation.

A public meeting was held on May 13, 1998 at 4:30 p.m. in conjunction with the Economic Development District and Panoramaland Resource Conservation and Development Council. The meeting was held at the Sevier Valley Applied Technology Center in Richfield. The meeting was publicly announced in the local newspapers several weeks prior to the meeting. A total of 16 people were in attendance, not including the consultant team. At the meeting comments were solicited on the project, inviting all ideas from all attendees. Among the ideas mentioned for consideration were the following:

- A need for transportation for medical services, non-emergency medical, employment, and intercounty service were identified—not just service for the elderly. It was also mentioned public transit may meet the transportation need of the elderly who are unable to drive. They could continue to live in their homes longer if other alternatives to transportation were available and not rely on their neighbors for assistance.
- It was noted that a new taxicab service is operating in Richfield. Taxi service is also available in Nephi.
- Senior services in the area are excellent; however, additional funding is needed.
- It was noted that intercity bus service on Highway 89 has been discontinued.

- A local mortuary is providing van and stretcher service to deliver people to the hospitals in Utah County.
- Questions were asked regarding who will drive, who will pay, and what kind of schedule will be operated.
- It was identified that economic opportunities have been lost due to lack of transit and air service.
- Suggestions for areas that would really use transit included: the central Gunnison area, Ephraim area—Snow College connection to Sevier Valley Tech, connections from UTA from some of the central communities such as Manti or Nephi, and central Utah to Draper.
- It was suggested to use commuter buses to replace some of the state pool vehicles.
- Lack of public awareness was one problem identified. It was believed that people would use the system if they knew more about it, when it ran, where it ran, etc.
- It was identified that there are more and more environmentally-conscious people that would support the transit system. Also, the elderly population is increasing.
- It was identified that an increasing number of commuters are driving to the outskirts of Salt Lake City and using the UTA transit system.
- It was identified that a property tax was not favored. However, an increase in the sales tax would be fair. It was also mentioned that the hospitals and clinics may assist in the funding of the transit system.
- It was noted that the Six County Area should make better use of existing resources, such as UDOT vehicles, new services, coordination efforts, etc.
- It was noted that the local mines do have some ridesharing and may have buses from Manti to Skyline. It was noted that a call-in ridesharing service should be developed.
- It was noted that a law in the legislature allows one-quarter cent sales tax to fund roads and is already used in some cities, including Richfield.

The Technical Advisory Committee (TAC) met on June 4, 1998 at the Richfield Courthouse in the basement Auditorium. The TAC was updated on the status of the study and discussed Technical Memorandum #1. The goals of the study were discussed and updated to reflect comments from the public meeting and from Committee members.

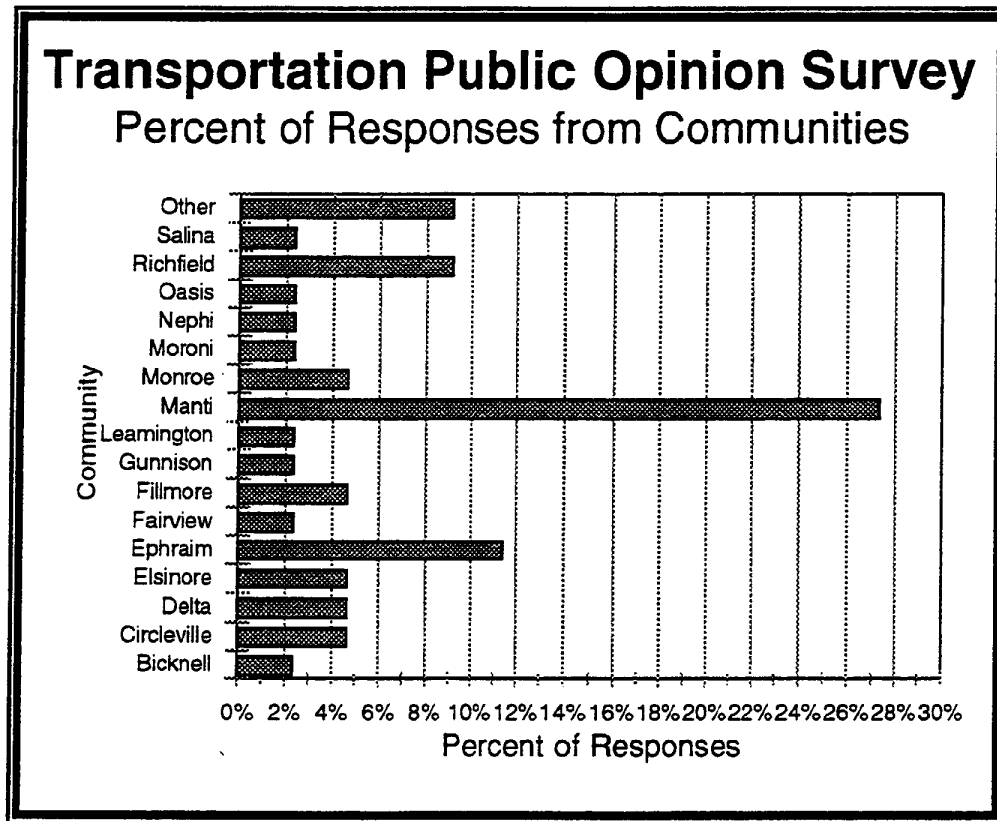
The TAC met again on July 16, 1998 at the Richfield Courthouse and discussed Technical Memorandum #2. Comments and suggestions were incorporated into this Draft Final Report.

ATTITUDES TOWARD PUBLIC TRANSPORTATION

The next section of the chapter summarizes the attitudes of the public regarding public transportation. The summaries are based solely on the responses from the transportation questionnaire that was published in the local newspapers and available at the public meetings and on the LSC web site. Appendix C presents a sample of the transportation questionnaire. Appendix C also contains the survey submitted in the Kids Mini-page Section of the Richfield Reaper. It must be noted that this is not a scientific survey, but an opportunity for additional public input. Care must be taken when drawing any conclusions from the input.

Forty-four transportation opinion surveys were returned to the LSC Team. Full-time employees in the Six County Area answered 30 percent of the surveys. Approximately 41 percent of the responses were from retired citizens within the Six County Area. The remaining responses were from part-time employees of the region and those who work at home. Figure IV-1 illustrates which communities the respondents are from. Manti and Ephraim communities had the most responses with 39 percent. Many other communities were also represented as indicated in Figure IV-1.

FIGURE IV-1

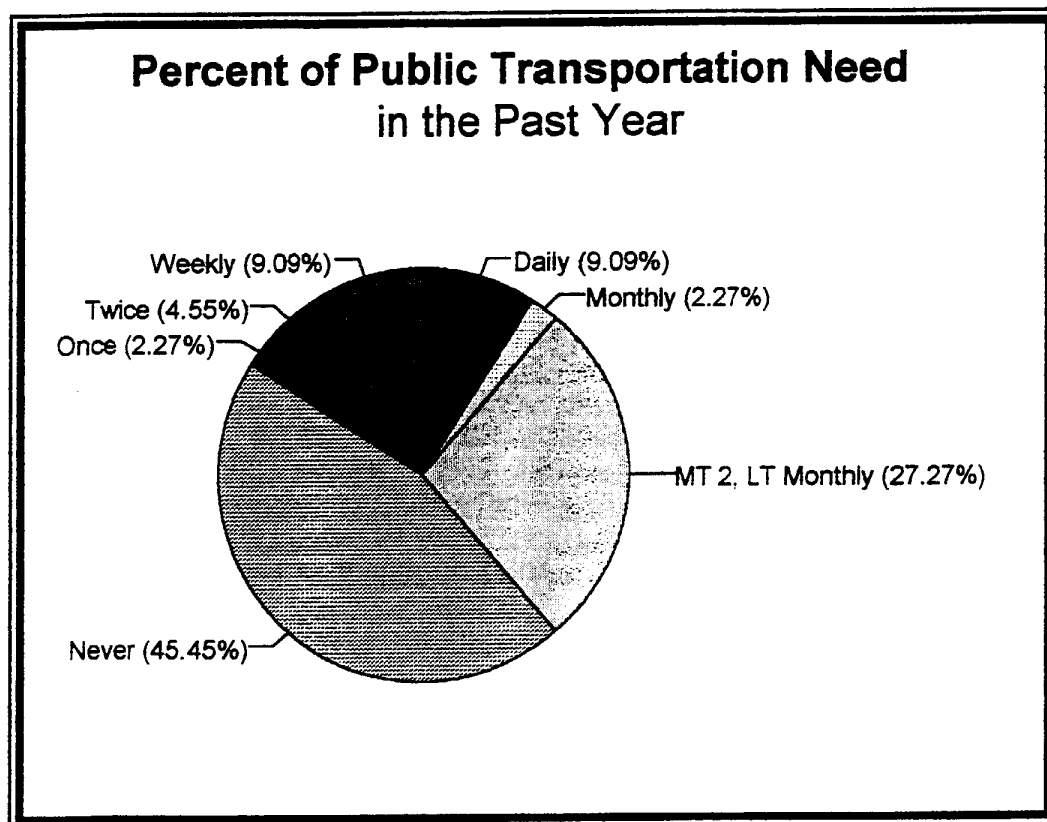


Of those persons working full-time, part-time, or at home, approximately 85 percent of the responses indicate that they drive alone each day. The remaining respondents walked to work, ride to work with someone, or drive with someone each day. Approximately 20 percent of the survey responses indicated that someone in their household had a need for special transportation services. Of those responses having a special need for transportation, all but two responses had a vehicle for personal use.

Over 80 percent of the survey responses had a vehicle for their own personal use. However, half of those respondents having their own vehicle reported needing some type of public transportation in the past year. The most common response from these people was "More than twice, but less than monthly." Figure IV-2 illustrates the percent of public transportation need in the last year by the survey responses. Approximately 45 percent of the results reported never needing public

transportation, but each of these respondents had a vehicle for their personal use. Twenty-seven percent of the responses reported they needed transportation more than twice, but less monthly. Twenty percent reported needing public transportation on a monthly, daily, or weekly basis.

Figure IV-2



Seventy-three percent of the surveys responded to the question to identify the greatest transportation needs in the Six County Area. Of the 73 percent, the most common answers included:

- Elderly transportation to medical, shopping, and necessary trips.
- Getting to and from colleges.
- Transportation between the communities and to Provo and Salt Lake City.
- Bike trails between communities and within communities.
- No transportation needs within the region.
- Local transportation between towns.
- Transportation for children.

Only a small percentage of the respondents answered the question of what public transportation services should be provided, where should the service go, what type of service, and who should provide the service. Of the limited survey answers, small buses and vans were the most common answer to what transportation service should be provided. The responses varied for the question of where the route should go. They included Circleville to Cedar City and Richfield, Delta to Provo, to Salt Lake City via Provo, Highway 89 corridor, intercommunity route, local routes and between the communities, and rural areas.

The final two questions for the type of public transportation service and who should provide it had very few responses. The few responses for the type of service included weekly and private shuttle. The question of who should provide the transportation service had only a few varied responses. These included colleges, private companies, county and state, and partnership between private and public.

Surprisingly, over 77 percent of the respondents answered "Yes" to the question if they were willing to pay a fare for public transportation. Those respondents who answered "No" to paying a fare also answered "Never" to the number of times needing public transportation in the last year. Fifty percent of the responses reported never needing public transportation in the last year, but are willing to pay a fare for public transportation.

Approximately 65 percent of the survey results reported they would not be willing to support public transit by an increase in property taxes. An increase in the sales tax was a more popular response with 23 percent of the respondents willing to support transit. The question of how much for the sales tax increase ranged from a one-sixteenth percent to one percent increase.

One compelling statement was sent in from one citizen of the Six County Area. The statement may have a stronger impact on elected officials, transit operators, and government officials than other figures presented. The statement read:

I am 84 yrs old and have been a driver until recently. I need help to get to the Provo area for doctor's appointments and family visits and also shopping. I will need local transportation help for local shopping.

The statement summarizes many of the additional comments and needs received on the surveys. Other comments included alternative transportation needs for the communities and ridesharing aspirations.

GOALS

The goals and issues of the Six County Area Transit Feasibility Study were discussed at each of the TAC meetings. The following goals were addressed throughout the study and implemented into the future transportation plan for the Six County Area. The goals include:

1. Provide access to medical services, employment, educational facilities, and social activities for persons who are elderly, individuals who have disabilities, and low income populations.
2. Coordinate transportation among the existing providers for the most efficient transportation system.
3. Maximize usage of existing equipment and available resources.
4. Develop and obtain additional resources.
5. Provide services which are economically and politically feasible and affordable for users.
6. Increase local interest and support.

These goals were used to evaluate the various service, institutional, and financial alternatives and formed the basis for selecting the preferred alternative.

Public Transportation Needs Assessment

INTRODUCTION

A key step in developing and evaluating transit plans is a careful analysis of the mobility needs of various segments of the population and the potential ridership of transit services. A good starting point for this analysis is to estimate the demand for transit. This chapter provides a detailed analysis of demographic data of the Six County Area and trends to quantify the scope and characteristics of the current and future transit demand within the study area.

The provision of effective transit service is dependent on a thorough understanding of the demand for service within a community. Total transit demand may be estimated by a transit demand model which reflects the characteristics of the Six County Area.

RURAL TRANSIT DEMAND ESTIMATE

The most recent research for rural transit demand estimation was completed in 1996 as part of the Transit Cooperative Research Program (TCRP). The TCRP research will be the focus of demand estimation in this chapter.

An important source of information regarding demand generated by programs is the Transit Cooperative Research Program (TCRP) Project A-3: Rural Transit Demand Estimation Techniques. This study, completed by SG Associates, Inc. and LSC, represents the first substantial research into demand for transit service in rural areas and small communities since the early 1980s. Study documents present a series of formulas relating the number of participants in various types of programs to the observed actual demand for service, based upon a database of 185 transit agencies across the country. The TCRP analytical technique uses a logit model approach to the estimation of transit demand, similar to that commonly used in urban transportation models. This model incorporates an expo-

nential equation which relates the quantity of service and the demographics of the area. (See Appendix D for the TCRP demand estimation model equations.)

As with any other product or service, the demand for transit services is a function of the level of supply provided. To use the TCRP methodology to identify a feasible maximum demand, it is necessary to assume a high supply level, as measured in vehicle-miles of annual transit service per square mile of service area. A review of the transit database presented in the TCRP documents indicates that 2,400 vehicle-miles per square mile per year is the upper-bound "density" of similar rural services provided in this country. This assessment of demand for the rural areas, therefore, could be considered to be the maximum potential ridership if a high level of rural service were made available throughout the Six County Area.

The 2,400 vehicle-miles per square mile equates to four round-trips of transit service per day through each square mile. The input data for this model are shown in Table V-1, including land area and population data. Applying this feasible maximum service density to the population of the rural cities and unincorporated areas comprising the study area yields the 1998 estimated transit demand for the general population, as well as the elderly and mobility-limited populations as shown in Table V-2. The maximum potential demand for elderly transit service is 54,060 trips; disabled demand is 5,300 trips; general public demand is 49,890 trips. The total estimated demand for 1998, using the TCRP method, is 109,250 trips. Demand estimates for 2002 are provided in Table V-3. Total demand for the year 2002 is estimated to be 138,450 one-way passenger-trips.

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**Table V-1
1990 Service Area Demand Analysis Input Data for TCRP Method**

Census Tract	Census Block Group	Area Description	Land Area (sq. mi.)	Total Population (Persons)	Total Number of Elderly Age 65+	Mobility-Limited Population	Below-Poverty Population
Juab County							
9731	1	NE Juab County	272.51	876	84	18	159
9731	2	N and W of Nephi	17.58	1,303	224	14	87
9731	3	Central Nephi	0.69	1,121	139	12	134
9731	4	South Nephi	1.39	1,236	170	44	27
9731	5	SE Juab County	640	494	64	14	75
9732	1	Central Juab County	449.17	613	109	12	86
9732	2	West Juab County	2003.28	174	0	3	36
Juab County Totals				5,817	790	117	604
Millard County							
9741	1	S & E of Oak City	181.4	738	68	15	25
9741	2	NE of Delta	264.8	489	39	0	48
9741	3	North Delta	6.2	1,533	168	8	239
9741	4	South Delta	3.8	1,610	142	10	90
9742	1	NW of Delta/N of Hinkley	205.1	931	69	9	195
9742	2	S of Delta and Hinkley	302.4	840	98	12	106
9742	3	W Millard County	3594.0	258	23	0	137
9742	4	Delta	23.4	1,062	118	20	174
9743	1	Scipio area	145.3	281	59	7	76
9743	2	Holden area	167.0	484	94	4	84
9743	3	E of Fillmore	129.7	1,124	153	22	193
9743	4	Central Fillmore	2.2	895	146	21	91
9743	5	S & W of Fillmore & I15	1282.4	301	20	0	35
9743	6	Kanosh area E of I15	271.6	787	157	5	76
Millard County Totals				11,333	1,354	133	1,569
Plute County							
9801	1	East Plute County	381.7	292	34	6	61
9801	2	SW Plute County	115.3	534	122	15	93
9801	3	NW Plute County	260.2	451	92	9	114
Plute County Totals				1,277	248	30	268
Sanpete County							
9721	1	NE Sanpete County	202.1	819	101	32	113
9721	2	Fairview area	3.7	589	89	3	91
9721	3	W of Fairview & Mt. Pleasant	33.4	907	112	12	142
9721	4	E of Mt. Pleasant	108.3	655	95	15	125
9721	5	Central Mt. Pleasant	0.6	883	184	12	146
9721	6	Spring City & area SE	84.6	934	126	19	187
9722	1	NW Sanpete County	141.6	632	84	18	88
9722	2	Moroni area	13.2	1,196	212	17	176

**Table V-1
1990 Service Area Demand Analysis Input Data for TCRP Method**

Census Tract	Census Block Group	Area Description	Land Area (sq. mi.)	Total Population (Persons)	Total Number of Elderly Age 65+	Mobility-Limited Population	Below-Poverty Population
9722	3	Wales & surrounding area	86.8	458	71	5	65
9723	1	SW Sanpete County	346.2	525	48	9	71
9723	2	NE Gunnison	5.1	1,186	170	23	136
9723	3	S Gunnison	10.3	913	105	13	206
9724	1	E Ephraim	36.9	2,093	125	21	447
9724	2	W Ephraim	24.0	1,401	151	17	498
9725	1	E Mantli & area E	46.6	1,102	180	33	268
9725	2	W Mantli	9.1	1,195	175	15	224
9725	3	SE Sanpete County	434.0	771	120	10	193
Sanpete County Totals			1,586.4	16,259	2,148	274	3,176
Sevier County							
9751	1	NE Sevier County	419.0	712	91	10	70
9751	2	N Salina	6.2	955	135	16	98
9751	3	SW Salina	5.7	1,027	136	19	202
9751	4	NW Sevier County	97.8	1,026	96	19	73
9752	1	Sigurd & area W	94.0	736	92	6	119
9752	2	SE Sevier County	768.9	341	35	9	57
9752	3	Glenwood & Annabella area	27.7	1,116	114	8	196
9753	1	Area N & W of Richfield	51.7	850	126	0	85
9753	2	N Richfield	0.3	1,002	116	34	75
9753	3	Central Richfield	0.5	811	132	8	106
9753	4	S Richfield	0.9	1,226	131	48	125
9754	1	NE Richfield area	4.4	897	153	0	128
9754	2	E Richfield area	0.5	958	142	22	195
9754	3	SE Richfield area	14.7	471	85	0	42
9755	1	NW Elsinore area	17.5	607	89	18	153
9755	2	SW Sevier County	384.0	731	109	11	145
9755	3	NW Monroe area	10.2	1,137	206	27	264
9755	4	N Monroe area	4.7	828	128	17	126
Sevier County Totals			1908.4	15,431	2,096	272	2,259
Wayne County							
9791	1	E Wayne County	1867.9	309	28	5	87
9791	2	SW Wayne County	429.7	870	168	27	80
9791	3	NW Wayne County	161.0	998	140	9	186
Wayne County Totals			2458.6	2,177	336	41	353
Six County Area Totals			16,674.7	52,294	6,972	867	8,229

Source: 1990 Census STF 3A Files.

Table V-2
1998 Estimated Non-Program Transit Demand using the TCRP Method

Census Block Group		Area Description	Estimated Annual Passenger-Trip Demand				Estimated Daily Transit Demand		Daily Demand Density (Trips per Sq. Mile per Day)	
Census Tract	Block Group		Elderly	Mobility Limited	Mobility + Elderly	General Public	#	%		
Juab County										
9731	1	NE Juab County	720	120	840	1,060	7	1.7%	0	
9731	2	N and W of Nephi	1,920	90	2,010	580	10	2.4%	1	
9731	3	Central Nephi	1,230	80	1,310	920	9	2.0%	13	
9731	4	South Nephi	1,430	290	1,720	180	7	1.7%	5	
9731	5	SE Juab County	550	90	640	500	4	1.0%	0	
9732	1	Central Juab County	930	80	1,010	570	6	1.4%	0	
9732	2	West Juab County	0	20	20	240	1	0.2%	0	
Juab County Totals			6,780	770	7,550	4,050	45	10.6%	19	
Millard County										
9741	1	S & E of Oak City	490	80	570	140	3	0.6%	0	
9741	2	NE of Delta	260	0	260	250	2	0.5%	0	
9741	3	North Delta	1,220	50	1,270	1,350	10	2.4%	2	
9741	4	South Delta	1,020	60	1,080	500	6	1.4%	2	
9742	1	NW of Delta/N of Hinckley	450	50	500	1,000	6	1.4%	0	
9742	2	S of Delta and Hinckley	640	60	700	540	5	1.1%	0	
9742	3	W Millard County	170	0	170	770	4	0.9%	0	
9742	4	Delta	850	110	960	980	8	1.8%	0	
9743	1	Scipio area	390	40	430	390	3	0.8%	0	
9743	2	Holden area	620	20	640	430	4	1.0%	0	
9743	3	E of Fillmore	1,110	120	1,230	1,090	9	2.1%	0	
9743	4	Central Fillmore	960	110	1,070	460	6	1.4%	3	
9743	5	S & W of Fillmore & I15	130	0	130	180	1	0.3%	0	
9743	6	Kanosh area E of I15	1,030	30	1,060	390	6	1.3%	0	
Millard County Totals			9,340	730	10,070	8,470	73	17.0%	7	
Plute County										
9801	1	East Plute County	250	30	280	340	2	0.6%	0	
9801	2	SW Plute County	880	80	960	520	6	1.4%	0	
9801	3	NW Plute County	670	50	720	640	5	1.2%	0	
Plute County Totals			1,800	160	1,960	1,500	14	3.2%	0	
Sanpete County										
9721	1	NE Sanpete County	800	200	1,000	690	7	1.5%	0	
9721	2	Fairview area	700	20	720	560	5	1.2%	1	
9721	3	W of Fairview & Mt. Pleasant	880	70	950	870	7	1.7%	0	
9721	4	E of Mt. Pleasant	750	90	840	770	6	1.5%	0	
9721	5	Central Mt. Pleasant	1,490	80	1,570	920	10	2.3%	17	
9721	6	Spring City & area SE	990	120	1,110	1,150	9	2.1%	0	
9722	1	NW Sanpete County	660	110	770	540	5	1.2%	0	
9722	2	Moroni area	1,810	110	1,920	1,170	12	2.8%	1	

Table V-2
1998 Estimated Non-Program Transit Demand using the TCRP Method

Census Tract	Census Block Group	Area Description	Estimated Annual Passenger-Trip Demand				Estimated Daily Transit Demand #	Estimated Daily Demand %	Daily Demand Density (Trips per Sq. Mile per Day)
			Elderly	Mobility Limited	Mobility Limited + Elderly	General Public			
9722	3	Wales & surrounding area	560	30	590	400	4	0.9%	0
9723	1	SW Sanpete County	380	60	440	440	3	0.8%	0
9723	2	NE Gunnison	1,340	140	1,480	840	9	2.1%	2
9723	3	S Gunnison	830	80	910	1,270	9	2.0%	1
9724	1	E Ephraim	1,070	140	1,210	2,970	16	3.8%	0
9724	2	W Ephraim	1,290	110	1,400	3,310	18	4.3%	1
9725	1	E Mantt & area E	1,540	220	1,760	1,780	14	3.2%	0
9725	2	W Mantt	1,490	100	1,590	1,490	12	2.8%	1
9725	3	SE Sanpete County	950	60	1,010	1,180	9	2.0%	0
Sanpete County Totals			17,530	1,740	19,270	20,350	155	36.3%	25
Sevier County									
9751	1	NE Sevier County	660	60	720	390	4	1.0%	0
9751	2	N Salina	1,060	100	1,160	600	7	1.6%	1
9751	3	SW Salina	1,070	120	1,190	1,240	10	2.2%	2
9751	4	NW Sevier County	760	120	880	450	5	1.2%	0
9752	1	Sigurd & area W	670	30	700	670	5	1.3%	0
9752	2	SE Sevier County	250	50	300	320	2	0.6%	0
9752	3	Glenwood & Annabella area	900	50	950	1,200	8	2.0%	0
9753	1	Area N & W of Richfield	990	0	990	520	6	1.4%	0
9753	2	N Richfield	960	220	1,180	480	7	1.5%	23
9753	3	Central Richfield	1,000	50	1,050	630	7	1.5%	14
9753	4	S Richfield	1,040	300	1,340	770	8	1.9%	10
9754	1	NE Richfield area	1,210	0	1,210	790	8	1.8%	2
9754	2	E Richfield area	1,150	140	1,290	1,220	10	2.3%	22
9754	3	SE Richfield area	470	0	470	240	3	0.6%	0
9755	1	NW Elsinore area	640	100	740	860	6	1.5%	0
9755	2	SW Sevier County	790	60	850	820	7	1.5%	0
9755	3	NW Monroe area	1,630	170	1,800	1,620	13	3.1%	1
9755	4	N Monroe area	930	100	1,030	710	7	1.6%	1
Sevier County Totals			16,180	1,670	17,850	13,530	123	28.7%	77
Wayne County									
9791	1	E Wayne County	200	30	230	490	3	0.7%	0
9791	2	SW Wayne County	1,220	150	1,370	450	7	1.7%	0
9791	3	NW Wayne County	1,010	50	1,060	1,050	8	1.9%	0
Wayne County Totals			2,430	230	2,660	1,990	18	4.3%	0
Six County Area Totals			54,060	5,300	59,360	49,890	428	100.0%	128

Source: LSC, 1998.

Table V-3
2002 Estimated Non-Program Transit Demand using the TCRP Method

Census Tract	Census Block Group	Area Description	Estimated Annual Passenger-Trip Demand				Estimated Daily Transit Demand #	Estimated Daily Transit Demand %	Daily Demand Density (Trips per Sq. Mile per Day)	
			Elderly +		Mobility					
			Elderly	Limited	Limited	General Public				
Juab County										
9731	1	NE Juab County	820	140	960	1,270	2,230	9	1.6%	0
9731	2	N and W of Nephi	2,380	120	2,500	750	3,250	13	2.3%	1
9731	3	Central Nephi	1,410	100	1,510	1,100	2,610	10	1.9%	15
9731	4	South Nephi	1,780	380	2,160	230	2,390	9	1.7%	7
9731	5	SE Juab County	630	110	740	600	1,340	5	1.0%	0
9732	1	Central Juab County	1,070	100	1,170	690	1,860	7	1.3%	0
9732	2	West Juab County	0	20	20	290	310	1	0.2%	0
Juab County Totals			8,090	970	9,060	4,930	13,990	55	10.1%	22
Millard County										
9741	1	S & E of Oak City	660	120	780	200	980	4	0.7%	0
9741	2	NE of Delta	340	0	340	340	680	3	0.5%	0
9741	3	North Delta	1,750	70	1,820	2,020	3,840	15	2.8%	2
9741	4	South Delta	1,370	80	1,450	700	2,150	8	1.6%	2
9742	1	NW of Delta/N of Hinckley	610	60	670	1,400	2,070	8	1.5%	0
9742	2	S of Delta and Hinckley	860	90	950	760	1,710	7	1.2%	0
9742	3	W Millard County	220	0	220	1,080	1,300	5	0.9%	0
9742	4	Delta	1,140	160	1,300	1,370	2,670	10	1.9%	0
9743	1	Scipio area	520	50	570	540	1,110	4	0.8%	0
9743	2	Holden area	830	30	860	600	1,460	6	1.1%	0
9743	3	E of Fillmore	1,480	170	1,650	1,520	3,170	12	2.3%	0
9743	4	Central Fillmore	1,280	150	1,430	650	2,080	8	1.5%	4
9743	5	S & W of Fillmore & I15	180	0	180	250	430	2	0.3%	0
9743	6	Kanosh area E of I15	1,380	40	1,420	540	1,960	8	1.4%	0
Millard County Totals			12,620	1,020	13,640	11,970	25,610	100	18.5%	9
Piute County										
9801	1	East Piute County	240	30	270	340	610	2	0.4%	0
9801	2	SW Piute County	840	80	920	520	1,440	6	1.0%	0
9801	3	NW Piute County	640	50	690	640	1,330	5	1.0%	0
Piute County Totals			1,720	160	1,880	1,500	3,380	13	2.4%	0
Sanpete County										
9721	1	NE Sanpete County	990	260	1,250	900	2,150	8	1.6%	0
9721	2	Fairview area	870	20	890	720	1,610	6	1.2%	2
9721	3	W of Fairview & Mt. Pleasant	1,100	100	1,200	1,130	2,330	9	1.7%	0
9721	4	E of Mt. Pleasant	930	120	1,050	1,000	2,050	8	1.5%	0
9721	5	Central Mt. Pleasant	1,860	100	1,960	1,200	3,160	12	2.3%	22
9721	6	Spring City & area SE	1,240	150	1,390	1,490	2,880	11	2.1%	0
9722	1	NW Sanpete County	820	140	960	700	1,660	7	1.2%	0
9722	2	Moroni area	2,420	160	2,580	1,640	4,220	17	3.0%	1

Table V-3
2002 Estimated Non-Program Transit Demand using the TCRP Method

Census Block Group		Area Description	Estimated Annual Passenger-Trip Demand				Estimated Daily Transit Demand		Daily Demand Density (Trips per Sq. Mile per Day)
Census Tract	Block Group		Elderly	Mobility Limited	Elderly + Mobility Limited	General Public	#	%	
9722	3	Wales & surrounding area	700	40	740	520	1,260	5	0.9%
9723	1	SW Sanpete County	470	70	540	570	1,110	4	0.8%
9723	2	NE Gunnison	1,670	180	1,850	1,090	2,940	12	2.1%
9723	3	S Gunnison	1,030	100	1,130	1,650	2,780	11	2.0%
9724	1	E Ephraim	1,330	180	1,510	3,860	5,370	21	3.9%
9724	2	W Ephraim	1,600	150	1,750	4,300	6,050	24	4.4%
9725	1	E Manti & area E	2,060	310	2,370	2,490	4,860	19	3.5%
9725	2	W Manti	2,000	140	2,140	2,080	4,220	17	3.0%
9725	3	SE Sanpete County	1,180	80	1,260	1,540	2,800	11	2.0%
Sanpete County Totals			22,270	2,300	24,570	26,880	51,450	202	37.2%
Sevier County									
9751	1	NE Sevier County	760	70	830	470	1,300	5	0.9%
9751	2	N Salina	1,320	130	1,450	780	2,230	9	1.6%
9751	3	SW Salina	1,330	150	1,480	1,610	3,090	12	2.2%
9751	4	NW Sevier County	870	140	1,010	540	1,550	6	1.1%
9752	1	Sigurd & area W	760	40	800	800	1,600	6	1.2%
9752	2	SE Sevier County	290	60	350	380	730	3	0.5%
9752	3	Glenwood & Annabella area	1,120	60	1,180	1,560	2,740	11	2.0%
9753	1	Area N & W of Richfield	1,240	0	1,240	680	1,920	8	1.4%
9753	2	N Richfield	1,200	280	1,480	630	2,110	8	1.5%
9753	3	Central Richfield	1,250	60	1,310	810	2,120	8	1.5%
9753	4	S Richfield	1,290	390	1,680	1,000	2,680	11	1.9%
9754	1	NE Richfield area	1,510	0	1,510	1,030	2,540	10	1.8%
9754	2	E Richfield area	1,420	180	1,600	1,590	3,190	13	2.3%
9754	3	SE Richfield area	540	0	540	280	820	3	0.6%
9755	1	NW Elsinore area	740	120	860	1,030	1,890	7	1.4%
9755	2	SW Sevier County	980	80	1,060	1,060	2,120	8	1.5%
9755	3	NW Monroe area	2,020	220	2,240	2,110	4,350	17	3.1%
9755	4	N Monroe area	1,160	130	1,290	930	2,220	9	1.6%
Sevier County Totals			19800	2110	21910	17290	39200	154	28.3%
Wayne County									
9791	1	E Wayne County	210	30	240	520	760	3	0.5%
9791	2	SW Wayne County	1,230	160	1,390	480	1,870	7	1.4%
9791	3	NW Wayne County	1,030	50	1,080	1,110	2,190	9	1.6%
Wayne County Totals			2470	240	2710	2110	4820	19	3.5%
Six County Area Totals			66,970	6,800	73,770	64,680	138,450	543	100.0%

Source: LSC, 1998.

Source: LSC, 1998.

Figure V-1 illustrates the distribution of demand based on the year 2002 TCRP estimates. Moderate to high concentrations of demand are found near Delta, Moroni, Ephraim, Manti, and in the Monroe-Elsinore area. The TCRP method of demand estimation is especially sensitive to elderly and disabled demand. Put another way, the TCRP model recognizes that elderly and disabled persons are more likely to rely on public transit in rural areas than the non-elderly and non-disabled general population, all other things being equal.

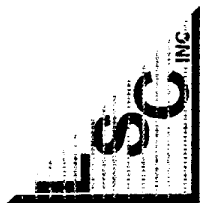
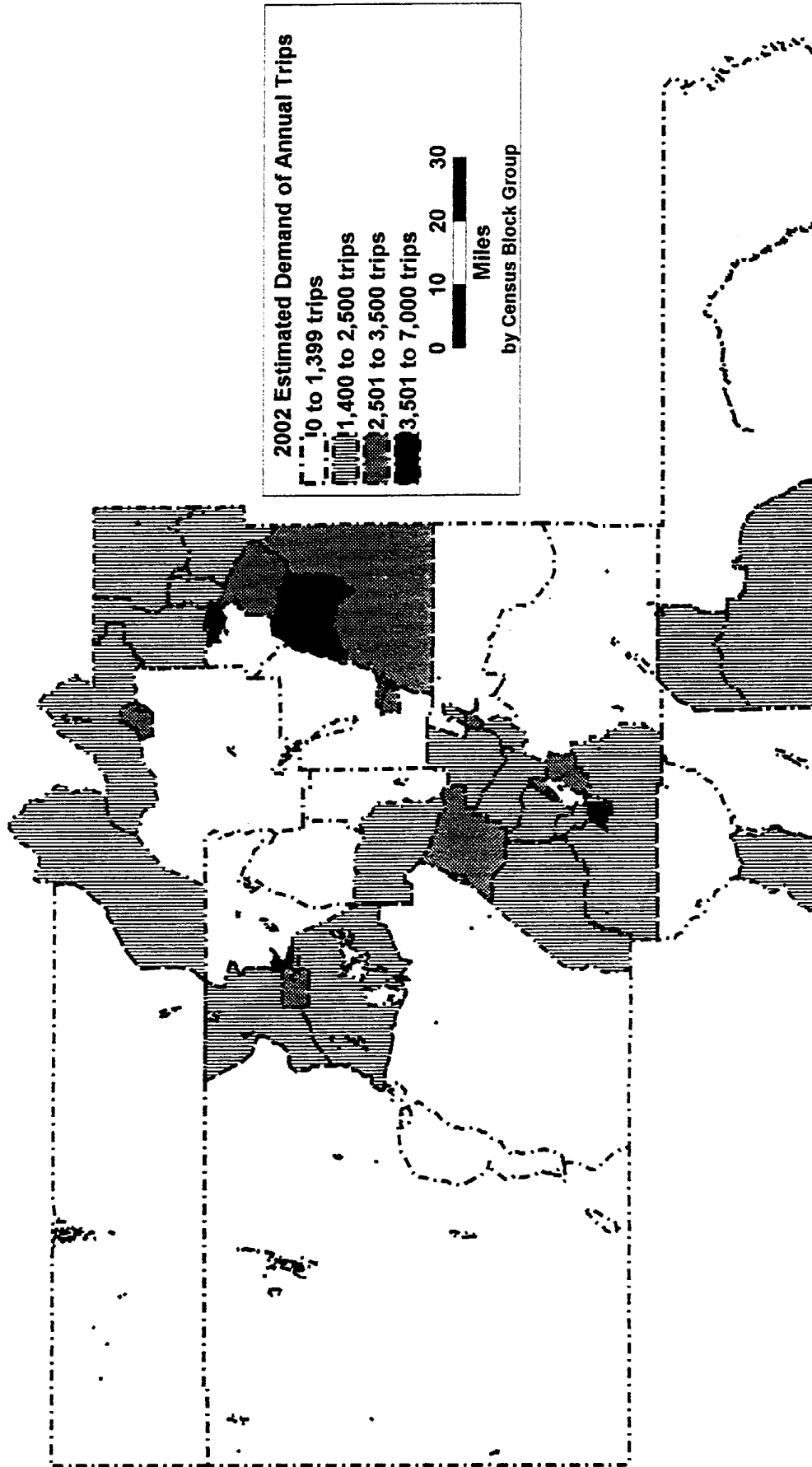
Summary of Demand Estimation

It is important to clarify the implications of the estimated transit need. Transit need indicates the number of trips which are required by a given population, as mentioned, under optimal transit conditions. Therefore, the need is equal to the number of trips which would be made if transit service were provided at convenient hours and at frequent intervals to all locations within the study area, on comfortable, easy-access vehicles. The total of these conditions can rarely, if ever, be met by public transit because public entities generally do not have the resources to provide this maximum level of service.

Nevertheless, the purpose of transit demand is to predict potential ridership under conditions which are closer to the optimum. The TCRP demand method is recognized by transportation experts to have significant advantages over other techniques and is therefore used for the Six County Area. The TCRP method was developed specifically for rural demand estimation. It can provide estimates for three different user groups and relates demand for transit trips to the supply or "service density" available in a particular area. Lastly, the TCRP method offers several options for adjustments or "calibration" that are less data-intensive than other methods of demand estimation.

Figure V-1

Six County 2002 Distribution of Estimated Demand Feasible Maximum Demand for Year 2002



UNMET NEEDS ASSESSMENT

Table V-4 calculates the unmet needs for the Six County Area according to the various recognized trip types. The unmet need is calculated by subtracting the actual ridership numbers of the area providers from the demand estimates. The ridership numbers are reviewed in the chapter on existing providers while this chapter has focused on demand estimates.

Table V-4				
Analysis of Needs: Met versus Unmet				
Type of Trip	Estimated Demand (Total Needs)	Existing Service (Needs Met)	Potential for Additional Service (Unmet Needs)	Percent of Need Unmet
General Elderly Trips	66,970	10,000	56,970	85%
General Disabled Trips	6,800	0	6,800	100%
General Public	64,680	0	64,680	100%
Total	138,450	10,000	128,450	93%
<i>Source: LSC 1998</i>				

In terms of sheer numbers, Table V-4 indicates that the need for general elderly, general disabled, and general public are not being met. Limited transportation service is provided for these individuals. Approximately 10,000 annual trips are provided by senior centers each year. A portion of these trips are for specific participants and clients of the agencies. The annual trips provided by the senior centers meets approximately 15 percent of the need for general elderly trips. No service is available for disabled persons or the general public.

CHAPTER VI

Service Alternatives

INTRODUCTION

Each service alternative must be evaluated using the locally established goals and objectives. Any alternative which does not support the mission of public transportation and the corresponding goals and objectives should not be considered for implementation. Several of the alternatives which have been considered initially may be rejected because they do not support the goals and objectives. Other alternatives appear to support the goals and objectives and will be given more consideration for service in the Six County Area.

TYPES OF SERVICE

The term "transit service" encompasses a wide range of alternatives. Traditionally, people think of transit service as vehicles operating on a strict schedule over a predetermined route such as the UTA service in the Wasatch Front. A number of other transit service types exist, including route deviation, checkpoint deviation, and user-side subsidies. This chapter explores the transit service alternatives for the Six County Area.

Fixed Routes

Fixed-route service fits the popular description of a bus system. Vehicles operate on a predetermined route following a set schedule. Specific stops are typically identified for locations where passengers will be picked up and dropped off. Routes are usually laid out in either a radial or grid pattern. In a radial route structure, all routes originate from a common point and extend to outlying areas. The central location serves as a transfer point and is frequently located at a destination with high transit activity. In many communities, this is the central business district or downtown. In a grid system, transfer points are identified where various routes intersect.

Fixed-route service is particularly convenient for passengers without mobility impairments. Research has shown that fixed-route passengers are willing to walk up to a quarter-mile to reach the bus stop. A fixed-route service pattern may be efficiently laid out with routes having half-mile spacing. However, those individuals with mobility impairments may have difficulty in accessing the fixed-route system. The advantages of a fixed-route service are: 1) it can be provided at a relatively low cost on a per-passenger-trip basis; 2) schedule reliability is high, since buses do not deviate from the route; and 3) service does not require an advance reservation.

Fixed-route transit service is seldom attractive for people with automobiles in smaller communities and rural areas. A private automobile offers flexibility compared to the rigid schedule of a fixed-route system. The need to walk even a few hundred feet to a bus stop, coupled with waiting for the vehicle and the comparatively slow travel time, makes the option of a private automobile an easy choice. Where there are significant congestion effects or limited parking availability, fixed-route transit becomes a more attractive alternative.

Fixed-route service requires that a community provide complementary paratransit service under the Americans with Disabilities Act. The paratransit service must provide service characteristics similar to the fixed-route service. Paratransit service is typically much more costly to operate than fixed-route service because of the characteristics of the service. Fixed-routes are established to meet the highest demand travel patterns while paratransit service must serve many origins and destinations in a dispersed pattern.

Service Routes

One concept which is being implemented in some communities as an alternative to traditional fixed-route or demand-response service is the service route. A service route is essentially a fixed route specifically designed to serve the elderly and disabled. Typically, a service route winds through residential neighborhoods with high concentrations of elderly and disabled persons in a pattern that passes within a block or two of all houses. It also directly serves important destinations, such as senior centers and commercial areas. The service provides a higher in-

vehicle travel time and a longer wait for the bus than would normally be acceptable to the general public.

Demand-Response Service

Demand-response transit service, frequently termed dial-a-ride, is characterized as door-to-door service scheduled by a dispatcher. A 24-hour advance reservation for service is normally required, although some immediate requests may be filled as time permits and if the service is particularly needed. The concept of demand-response was originally developed in the early 1970s as an alternate form of public transportation for the general public. The original efforts proved to be more expensive than envisioned and did not attract the ridership which was forecasted. As a result, demand-response transit has been used almost exclusively in this country for elderly or disabled passengers. However, many communities are beginning to recognize the advantages of demand-response service for low density areas with low levels of transit demand. Improved technology has led to improvements in dispatching and scheduling which has increased the efficiency of demand-response service.

Flexible Routes

Another alternative to fixed-route and demand-response service is flexible routes, route deviation, or checkpoint deviation. With flexible routing or route deviation, transit vehicles follow a specific route, but leave the route to serve demand-response origins or destinations. The vehicles are required to return to the designated route within one block of the point of deviation to ensure that all intersections along the route are served. Passenger onboard travel time is greater than for fixed-route service, and the service reliability is lower.

Under checkpoint service, vehicles make periodic scheduled stops at centers of activity, such as program sites, shopping areas, or residential communities. Specific routes are not established between checkpoints, allowing the vehicles to provide demand-response service. Riders are picked up—typically at a reduced fare—at these checkpoints and taken either to another checkpoint or to a demand-response specific destination. Service between checkpoints does not require advanced reservations. However, service from any other location on a demand-

response basis would require an advance reservation so that the vehicles could be scheduled and diverted between checkpoints.

Vehicle dispatching and scheduling must be done carefully. The dispatcher must be careful to ensure that a vehicle is available to serve designated stops within the specified service time. To provide a reasonable amount of flexibility, a lenient definition of on-time performance is typically used. A reasonable policy for route deviation or checkpoint service in the Six County Area would be a 10-minute window at each designated stop.

Checkpoint service offers an advantage over route deviation service because there is no specified route for the vehicles to use. As described under route deviation service, the vehicles must return to the route within one block of the point where the vehicle left the route. Checkpoint service, on the other hand, requires only that the vehicle arrive at the next checkpoint within the 10-minute window.

User-Side Subsidy

The user-side subsidy is an approach often used with private transportation providers. The subsidy is provided to the user, typically in the form of a coupon for service. The user receives transportation services from an approved provider and the coupon is submitted as part or all of the payment. The transportation provider is then reimbursed for the service.

Shared-ride Taxi

Shared-ride taxi is a form of public transportation provided by private taxi operators. The service operates similar to a demand-response transit service, but the provider is the local taxi operator. The taxi operator is frequently subsidized to keep fares at an affordable level. This approach is prevalent in small communities throughout the state of Wisconsin.

Both the shared-ride taxi and user-side subsidy approaches can be effective for rural areas. Public transportation service is provided without a public entity setting up a transit system. Private transportation providers, such as taxi operators, are given business and often are supported sufficiently that the

business may survive in areas where private operators often are unable to generate sufficient revenue.

SERVICE WITHIN COMMUNITIES

The first service alternatives are circulator services within individual communities. The services would provide access to employment, businesses, schools, hospitals, clinics, and any other destinations within the community. For purposes of comparison, the service is assumed to operate on weekdays only for 12 hours each day. Holidays and weekends would not have service. The communities considered for this type of service are Nephi, Delta, Richfield, Manti/Ephraim, and Moroni/Mount Pleasant. Passenger ridership estimates were made using the demand estimation methodology described in Chapter 5.

The service within each community would be either a demand-response service or some type of flexible route service. Preliminary cost estimates have been developed for each alternative. The cost data for existing services in the Six County Area are not adequate to develop an accurate cost factor. Costs from other western rural transit systems were reviewed to develop an hourly cost factor to use for comparison. Based on costs ranging from approximately \$21 to \$29 per hour, a typical cost of \$25 was selected for this comparison and evaluation of service alternatives.

The results of the comparison are presented in Table VI-1. The estimated annual cost for one vehicle to provide daily service in each community is \$76,500. This is the estimated full cost of providing the service, including driver wages and benefits, scheduling and dispatching, administration, and maintenance. The service productivity, measured in passengers per hour, ranges from 1.8 to 5.0 passengers per hour. The cost per passenger ranges from \$5.00 to \$13.64.

Table VI-1 Comparison of In-town Service Alternatives						
Area	Vehicles	Hours/Day	Op. Cost	Passengers	Pax/Hour	Cost/Pax
Nephi	1	12	\$76,500	6,630	2.2	\$11.54
Delta	1	12	\$76,500	6,120	2.0	\$12.50
Richfield	1	12	\$76,500	8,670	2.8	\$8.82
Manti/Ephraim	1	12	\$76,500	15,300	5.0	\$5.00
Moroni/Mt. Pleasant	1	12	\$76,500	5,610	1.8	\$13.64
Source: LSC, 1998						

SERVICE BETWEEN COMMUNITIES

There are several alternatives for service between communities within the Six County Area. These alternatives are analyzed separately, although there may be some duplication of service among several alternatives. The preferred alternative may be a combination of several individual alternatives as combining these could provide economies.

Many of the communities do not have hospitals. There are limited service medical clinics in a number of communities, but specialized services and doctor visits often require travel to larger communities. Some of the small communities do not have grocery stores, so residents must travel to other communities for even basic items. Some medical services, such as dialysis, are not available in the Six County Area, so residents must travel to Utah County. These alternatives are designed to meet these various needs. The alternatives are summarized in Table VI-2.

Table VI-2 Comparison of Regional Service Alternatives						
Regional Service	Days/Week	Hours/Day	Op. Cost	Passengers	Pax/Hour	Cost/Pax
Monroe to Ephraim	5	16	\$102,000	2550	0.6	\$40.00
Richfield to Santaquin	5	8	\$51,000	350	0.2	\$145.71
Fillmore to Santaquin	5	6	\$38,250	510	0.3	\$75.00
Delta to Santaquin	5	6	\$38,250	510	0.3	\$75.00
Snow College/Sevier Valley	5	18	\$114,750	3500	0.8	\$32.79
Bicknell to Richfield	1	8	\$10,200	104	0.1	\$98.08

Monroe to Ephraim

This alternative is daily service running in the Sevier Valley between Monroe and Ephraim. The service would be provided by two vehicles with four trips in each direction daily. One vehicle would start in Ephraim and the second vehicle would start in Monroe. Stops would be made at each community along the route including Richfield, Salina, Gunnison, Manti, and the smaller communities in between. This service is estimated to cost \$102,000 per year with a cost per passenger of \$40.00 and a productivity of 0.6 passengers per hour.

Richfield to Utah County

This alternative is daily service from Richfield to a point in Utah County where passengers could transfer to either UTA or Utah County United Way vehicles. The most likely point for transfers would be Santaquin. One vehicle would provide the service, starting at Richfield in the morning and returning in the late afternoon. The schedule should allow ample time for medical appointments and other business. The hours would not be set to support commuter travel. The bus would stop in communities such as Salina, Gunnison, and Nephi along the route. This service is estimated to cost \$51,000 per year with a cost per passenger of \$145.71 and a productivity of 0.2 passengers per hour.

Fillmore to Utah County

This alternative is similar to the service from Richfield. One vehicle would operate daily between Fillmore and a transfer point in Utah County. Stops would be made in Holden, Scipio, and Nephi along the way. This service is estimated to cost \$38,250 per year with a cost per passenger of \$75.00 and a productivity of 0.3 passengers per hour.

Delta to Utah County

This is a similar alternative with one vehicle leaving Delta each morning, traveling through Eureka or Nephi. The vehicle would travel to a transfer point in Utah County. This service is also estimated to cost \$38,250 per year with a cost per passenger of \$75.00 and a productivity of 0.3 passengers per hour.

Snow College to Sevier Valley Technical College

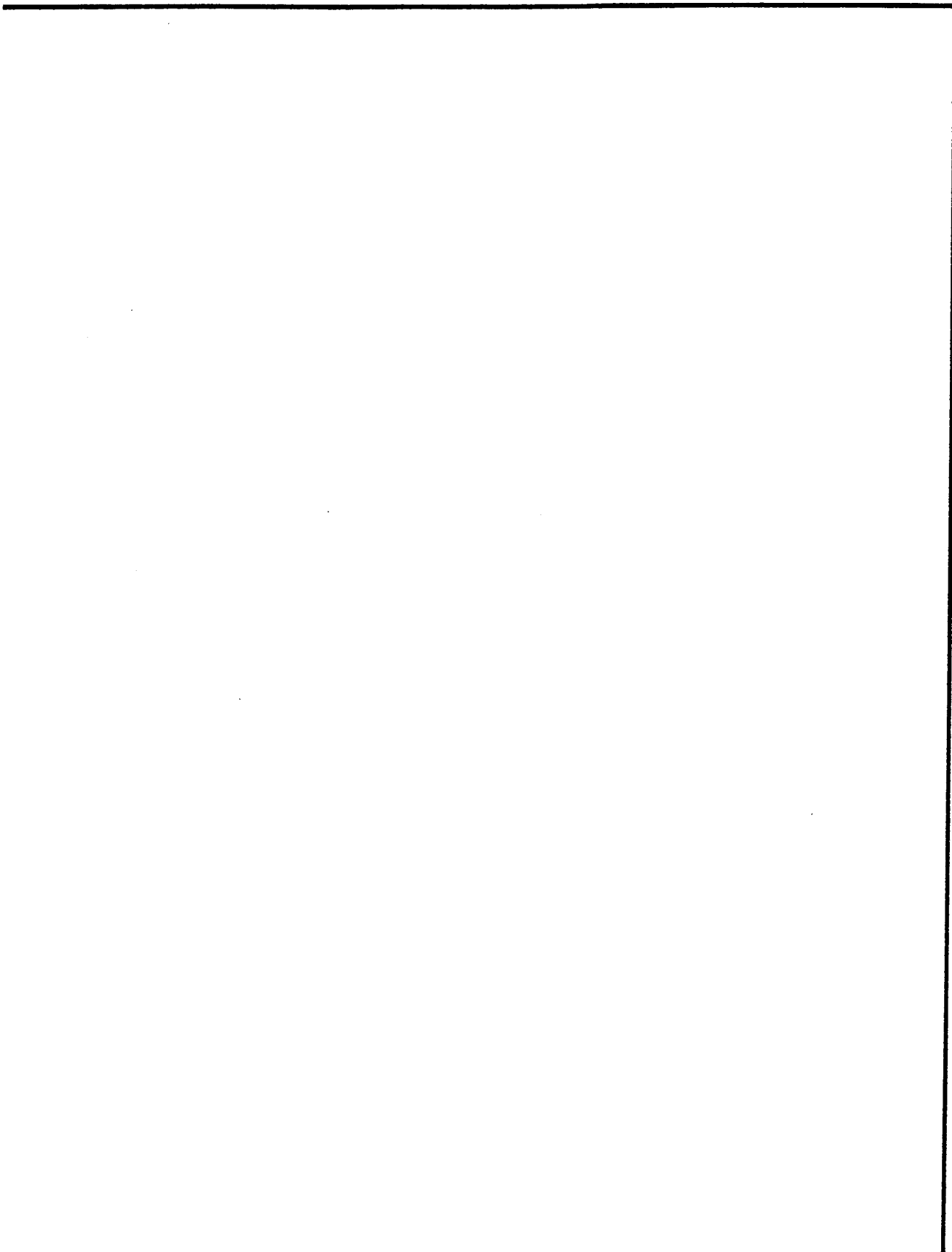
These two educational institutions are being integrated. As a single school, students will be able to take classes at either campus. A shuttle service between the two campuses would meet the needs of students using both campuses. The alternative which is evaluated would be two vehicles operating between the two campuses for nine hours each day. The alternative is analyzed as serving only the two campuses, although this service could be combined with the Monroe to Ephraim service described earlier. This service is estimated to cost \$114,750 per year with a cost per passenger of \$32.79 and a productivity of 0.8 passengers per hour.

Bicknell to Richfield

This alternative would provide service from western Wayne County to Richfield. There is no hospital in Wayne County, so residents must travel to Richfield or another community. The alternative is service on only one day each week. A bus would leave Bicknell in the morning with stops along the way to serve Lyman and Loa. The bus would return from Richfield in the afternoon. This service could be on a reservation basis, so that if a minimum number of passengers have not made reservations, the service would not be operated that week. This service is estimated to cost \$10,200 per year with a cost per passenger of \$98.08 and a productivity of 0.1 passengers per hour.

SCHOOL BUSES FOR GENERAL PUBLIC TRANSIT

This option is to use school buses for general public transit service. School buses operate throughout the rural areas of the counties and could provide transportation to the larger communities for rural residents. Non-student riders would have to be accommodated on the regular school bus routes and only if space is available. This alternative does not include any special runs for the general public, but rather the public would ride on regular school bus runs. Service would have to be augmented by vans or other vehicles during the summer and other school vacations to maintain the service and meet the needs of residents using this service.



CHAPTER VII

Institutional Alternatives

INTRODUCTION

Currently, there are no true public transportation services within the Six County Area. There are numerous resources, consisting of vehicles and an operations facility, in the region. Service is limited to specific programs such as the senior centers. The senior centers are organized through the Six County Association of Governments, but there is limited coordination of transportation services. The only coordination of significance is the Sevier County Corporation which provides transportation to the senior centers in Sevier County.

An important objective of the current Transit Feasibility Study for the Six County Area is to present institutional framework recommendations for public transit which are acceptable to the parties involved and which can be implemented. Toward that end, this discussion is intended to present an analysis of the most appropriate alternatives and to provide a basis for making a decision. Drawing upon past work conducted for similar areas, this discussion includes a description of the most feasible alternatives, summarizes the advantages and disadvantages of each, and presents the alternatives in terms of their effectiveness in meeting established criteria and their ability to be implemented.

In considering institutional alternatives, it is important to differentiate the question of "Who will administer and fund the transit system?" from "Who will operate the transit system?". Transit service need not be operated directly by the funding agency as service can be provided on a contract basis by another organization. The involvement of the public entity in policy making does not restrict its options regarding the actual delivery of service. Many systems use some form of public-private partnership where public funds are used to subsidize trips made through a private provider. An example of this might be subsidizing of a portion of intercity bus fares.

Criteria for the Institutional Structures

The experience of transit organizations nationwide over the last few decades indicates that the following criteria should guide the selection of an institutional form for managing and operating public transit. It should be an entity:

- whose structure is legitimate and whose policy-making actions are authorized and defensible;
- which can limit the exposure of the participants to suits and claims of liability;
- which can be responsive to the complete policy making and management needs of the transit organization;
- which has political and financial support and can endure more than one year at a time; and
- which can annually perform pro-active planning to improve the system, and effectively identify and implement improvements regularly and easily.

INSTITUTIONAL ALTERNATIVES

Transit services throughout the West have a variety of organizational homes, from independent agencies (Souris Basin, North Dakota), to transit districts (UTA), to departments of a municipal government (Logan, Utah), to departments of county government (Summit County, Colorado), to nonprofit corporations (Mesa County, Colorado and Casper, Wyoming).

In the case of the Six County Area, these alternatives can be specified as follows:

1. A Department of Municipal or County government.
2. An Independent Agency formed by Intergovernmental Agreement (IGA) between the counties and cities in the region under the Inter-local Cooperation Act.
3. A Transit District set up to provide transit service throughout the region.
4. An existing intergovernmental agency such as the Six County Association of Governments.
5. A private for-profit or nonprofit corporation.

The following sections summarize the advantages and disadvantages of these alternatives.

Local Governmental Public Transportation Department

Description, Form, and Elements

- A local governmental entity would establish a formal department to operate public transit services.
- Social Service agencies or private entities could contract with the governmental entity to provide specified transportation services.
- Other local governments and providers may have representation on an Advisory Board.

Advantages

1. A municipal system could have the broadest possible tax base.
2. Towns or private entities could contract with the governmental entity for special services above and beyond those provided on a standardized basis.
3. Contracts between the parties could specify what services are provided and the standards of performances for those services.
4. Local governments in Utah have the authority to provide public transportation services and to contract with other government entities to provide the service.

Disadvantages

1. Final decisions regarding management, operation, and financing of transportation services would rest in the hands of the elected governmental entity officials which may or may not give transit a high priority.
2. Municipalities in the region do not appear to desire entirely shouldering the responsibility of directly providing transit services.
3. Local government does not provide a dedicated funding source for public transportation.
4. Operation by a local government does not support coordination of transportation service throughout the Six County Area.

Intergovernmental Agency

Description, Form, and Elements

- An agency formed by intergovernmental agreement among the cities and counties under Title 11, Chapter 13 of the Utah State Code.

- Member governments are the sole participants in the agency. Representation on the governing board is determined by member governments. Membership on the board could include representation from non-participants.
- Agency could provide service to social service agencies or private entities through contract.

Advantages

1. There is a successful history of cooperation among the counties and cities in the Six County Association of Governments.
2. Retains governmental involvement in policy and financial issues without the management responsibilities and burdens.
3. Clearly defines the role of all participants in the provision of transit services.
4. If provided with a dedicated local funding source, this structure provides stability and helps ensure the continuation of transit service in the community.

Disadvantages

1. May be viewed as being too powerful.
2. Requires city and county cooperation, and approval by voters to establish a dedicated local funding source to support the agency. The process of establishing a uniform and consistent tax structure is likely to be piecemeal, creating divisions until all parties have passed similar measures.
3. Requires the funding partners to reach agreement regarding an equitable funding arrangement.

Special Service District

Description, Form, and Elements

- A special service district for transit would be established under Title 17 of the Utah State Code.
- The district would be administered by an independent board.

Advantages

1. Establishes an entity which could provide transportation services throughout the Six County region.
2. A transit district would be dedicated to providing public transportation services.
3. Provides the mechanism for coordination of services.

Disadvantages

1. There is less direct involvement of elected county and municipal officials.
2. Would require a special vote to establish the district and to implement a dedicated tax.

Private Nonprofit Corporation

Description, Form, and Elements

- A private nonprofit corporation would be established to operate transit independent of any governmental unit.
- Individual counties and/or municipalities would contract with the transportation corporation for service based upon a mutually-agreed upon price (i.e., bus-hour or bus-miles of service based on allocated costs).

Advantages

1. Maximizes the privatization of transportation services, reducing the size of government.
2. Services desired by each county or city would be specified and a contract would guarantee their delivery.

Disadvantages

1. Long-range planning would be difficult because of the year-to-year nature of a contracting arrangement.
2. The issue of local dollars to pay for contracted services would be a problem. Without continued commitment it may be difficult to attract a suitable contractor to provide area-wide service.
3. The arrangement is typically found to be appropriate only for private companies who desire service for their own clients, such as skiers or group homes.

SUMMARY

Table VII-1 ranks each institutional alternative according to four factors: legal capability, revenue generation capacity, administrative impacts, and political acceptability. Legal capability refers to the existence of statutory authority. Revenue generation capacity refers to the capability of funding sources to generate adequate funding levels relative to projected subsidy requirements. Administrative

impacts refer to the level of effort involved in implementing a funding mechanism and the ability to provide coordinated service throughout the Six County Area. Political acceptability refers to the likelihood of a given funding mechanism to be accepted by the public and the local, elected officials.

<p>Table VII-1 Institutional Alternatives Comparison Matrix</p>				
Institutional Alternative	Legal Capability	Revenue Generation Capacity	Admin. Impacts	Political Acceptability
Local Gov't Dept.	■	◻	□	◻
Intergov't Agency	■	◻	■	◻
Special Service District	■	■	□	□
Nonprofit Corporation	◻	□	◻	■
<p>Legend: ■ = strong/acceptable ◻ = moderate/satisfactory □ = weak/unacceptable</p>				
Source: LSC, 1998				

As the table shows, local government-based alternatives have the legal authority and ability to levy taxes, but running public transit without regional assistance would be more administratively difficult and in most cases, less politically acceptable. An intergovernmental agency possesses strong legal and moderate revenue attributes, relying on what the cities and counties are able to do. The administrative system is already in place for this alternative and it appears to be more acceptable at this point to pool resources for public transit services than operating stand-alone county services. The special service district has strong legal authority and therefore strong revenue generation capacity. However, it would have severe administrative impacts (creating a new organization and adding another layer of government) and is not perceived to be politically acceptable. Finally, the nonprofit corporation has moderate legal and moderate coordination and administrative

characteristics. All other categories for the nonprofit alternative are judged to be satisfactory, depending a great deal on the cities and counties who would contract with such an agency.

CHAPTER VIII

Financial Alternatives

INTRODUCTION

The crux of any issue regarding the provision of public service is the matter of funding. Provision of a sustainable, permanent funding source has been proven to be the single greatest determinant in the success or failure of transit service. Factors which must be carefully considered in evaluating funding sources include the following:

- It must be equitable—the costs of transit service to various segments of the population must correspond with the benefits that they accrue.
- Collection of tax funds must be efficient.
- It must be sustainable—the ability to confidently forecast future revenues is vital in making correct decisions regarding capital investment such as for vehicles and facilities.
- It must be acceptable to the public.

Currently there are not funds collected for public transportation. Options to consider, such as fare revenues, federal funds, state funds, local funds, and user fees, are presented below.

FEDERAL FUNDING SOURCES

The primary source of potential federal funding assistance for transit is the U.S. Department of Transportation, particularly programs under the Urban Mass Transportation Act of 1964, as amended. In recent years, the federal government incrementally reduced transit funding levels across the country. However, the recent legislation passed by Congress provides for increased transit funding. An additional factor is the fact that rural programs have traditionally enjoyed stronger congressional support than have the urban-oriented programs. These funding programs are described below.

5310 (Section 16) Elderly and Handicap Capital Funds

This program is administered by the Utah Department of Transportation and provides funds to private, nonprofit agencies which transport elderly and handicapped persons. The funds are available on a discretionary basis to support 80 percent of capital costs such as vehicles, wheelchair lifts, two-way radios, and other equipment. Utah received \$348,101 in these funds in Fiscal Year 1996, which is only a 9.7 percent drop from 1995.

5311 (Section 18) Capital and Operating Funds

Established by the Federal Transportation Act of 1964 and amended by the Surface Transportation Assistance Act of 1978 and the Intermodal Surface Transportation Efficiency Act of 1991, this program provided funding assistance to communities with less than 50,000 population. The Federal Transportation Administration (FTA) is charged with distributing federal funding for "purposes of mass transportation." The program is administered by the Utah Department of Transportation. The funds are available to public and private transportation providers in the state on a competitive, discretionary basis to support up to 80 percent of the net administrative costs and up to 50 percent of the net operating deficit. Use of this funding requires the agency to maintain certain records in compliance with federal and state requirements. The bulk of the funds is apportioned directly to rural counties based upon population levels. The remaining funds are distributed by UDOT on a discretionary basis, and are typically used for capital purposes. Cuts in this program have been substantially smaller than in the urbanized area program, equaling roughly 16.4 percent.

In Fiscal Year 1995, the bulk of these funds within Utah were used for capital purposes (\$356,803 out of a total of \$581,148). This program would be a potential source of funding for buses and/or passenger facilities for regional transportation services.

5309 (Section 3) Discretionary Funds

Established by the Federal Transportation Act of 1964 and amended by the Surface Transportation Assistance Act of 1978 and the Intermodal Surface Transportation Efficiency Act of 1991, this program provides capital funding assistance

to any size community. The program is administered by the FTA. The funds are available to public transportation providers in the state on a competitive discretionary basis, providing up to 80 percent of capital costs. These funds are generally used for "big ticket" major capital investment projects, as the LRT system in Salt Lake City who received \$9,642,195 in these funds for Fiscal Year 1996. Competition for these funds is fierce, and generally requires lobbying in Washington, D.C. and receiving a congressional earmark. Approximately 10 percent of the funds are set aside for rehabilitation or replacement of buses and equipment, and the construction of bus transit facilities. In 1996, the State of Utah received a total of \$1,736,875 in funds. This source is a key element in funding for transit facilities (such as passenger transit terminals and maintenance/administrative facilities).

Congestion Mitigation/Air Quality (CMAQ) ISTEA Funding

A strong new source of funding for many transit services across the country has been provided by the Congestion Mitigation/Air Quality (CMAQ) program, authorized through ISTEA. This funding is available to metropolitan areas that do not meet federal air quality standards regarding ozone or carbon monoxide.

Surface Transportation Program (STP)

The funds from this program may be spent on any road that is functionally classified as a collector or arterial for urban streets or as a major collector or arterial for rural areas. The type of projects may range from rehabilitation to new construction. These funds may also be used for transit projects.

Fifty percent of a state's STP funds are allocated to urban and rural areas of the state based on population. Thirty percent can be used in any area of the state at the discretion of the State Transportation Commission. For the remaining 20 percent of the funds, 10 percent must be spent on highway safety projects, and 10 percent must be spent on Transportation Enhancements. Enhancement projects can range from historic preservation and bicycle and pedestrian facilities to landscaping and water runoff mitigation.

Advantages

1. Using federal funding reduces the need to raise funds locally, freeing up funds for other needed services.

Disadvantages

1. Many organizations are frustrated by the "bureaucratic" requirements attached to using federal funding.
2. Competition for federal funding is strong.
3. Federal funding is never a certainty, especially given current federal efforts to reduce expenses and balance the budget.
4. Only certain entities can secure funds.

Other Federal Funds

The U.S. DOT funds other programs including the Research and Special Programs Administration (RSPA), and the National Highway Traffic Safety Administration's State and Community Highway Grants Program funds transit projects that promote safety.

A wide variety of other federal funding programs provide support for elderly and handicapped transportation programs. Some of these are currently being utilized in the region and others can be explored further, including the following:

- Retired Senior Volunteer Program (RSVP)
- Title IIIB of The Older Americans Act
- Medicaid Title XIX
- Veterans' Affairs
- Job Training Partnership Act (JPTA)
- Temporary Assistance for Needy Families (TANF)
- Developmental Disabilities
- Housing and Urban Development (Bridges to Work and Community Development Block Grants)
- Head Start
- Vocational Rehabilitation
- Health Resources and Services Administration
- Senior Opportunity Services
- Special Education Transportation
- Weed and Seed Program, Justice Department
- National Endowment for the Arts
- Rural Enterprise Community Grants, Agriculture Department
- Department of Commerce, Economic Development and Assistance Programs
- Pollution Prevention projects, Environmental Protection Agency

STATE FUNDING SOURCES

Alcohol Tax

Although this source does not now exist in the State of Utah, it is presented here as a possible alternative worth pursuing in the future. The State of Alabama passed a statewide beer tax in 1982 which standardized the tax rate across all counties and which also allowed counties to make their own decision with regard to distributing the tax revenues. In one of the counties (Jefferson County), approximately 25 percent of the revenues were dedicated to the local transit authority. (Source: Alternative Financing for Urban Transportation. U.S. DOT, July 1986.)

Advantages

1. Logically and legally defensible.
2. This alternative would not necessarily require direct voter approval.

Disadvantages

1. Would require legislative action at the state level to implement. This interpretation of liquor taxation does not currently exist in the State of Utah.
2. There may be resistance by responsible drinkers who do not wish to pay the tab for those who are irresponsible.

Health and Human Services Funding

State of Utah General Funds are distributed to transit providers via the Health and Human Services Department. The Medicaid Services division reports that of all the funding for transportation 75 percent are federal dollars and 25 percent are from the state. Eligibility determinations vary by location within the state.

The Developmental Disabilities division provides funding to different agencies around the state, some of which are only engaged in transportation and others which engage in transportation as part of a larger organization.

The Utah State Department of Workforce Services, located in Richfield, may have reimbursement transportation funds available for Welfare-to-Work clients in Sevier, Wayne, and Piute Counties. The department would be willing to work with

a public transportation agency in the area in providing reimbursement funds to their clients if they are scheduled for training or involved in an employment plan within the region. An example of reimbursement funds is reimbursing the client for taxi fares to a job training or pay the client's tokens on the public transportation system.

Advantages

1. An important source of funding given the diverse number of human service-related providers in the Six County Area.
2. This is an existing source of funding and does not require voter approval.

Disadvantages

1. This funding is not available to all Six County providers. To benefit from this funding source, the Six County Area transit system and other agencies would need to coordinate with eligible agencies.
2. Like federal funding, this funding source would require moderate to extensive paperwork and funding is not guaranteed from year to year.

LOCAL FUNDING SOURCES

A variety of local funds are available to local transportation providers in the Six County Area. Ideally, the amount of contribution by each funding entity should be based on the amount of service provided and the resulting benefit derived by each entity. In practice, achieving ideal levels of equity can be challenging. The provision of some services may require innovative local financing methods, such as formation of special districts, to ensure equitable contributions of transit funding by those receiving the service.

Examples of local support for the area include the following: voluntary assessments of municipalities; contributions by major business associations; and taxes (sales tax, lodging tax, property tax, fuel tax, real estate tax). Many local agencies benefit from business support in the form of advertising. These and other local funding sources are discussed below.

Voluntary Assessments

This alternative requires each participating governmental entity (the cities and counties) and private businesses to contribute to funding of the system on a year-to-year basis. This alternative is common for areas which provide regional service rather than service limited to a single jurisdiction.

Advantages

1. Provides the most direct control over transit purse strings by community leaders.
2. Does not require voter approval of funding.
3. Does not require long-term commitment to transit funding.

Disadvantages

1. Does not ensure the performance of transit because the funding may be eliminated at any time.
2. Makes transit very susceptible to budget reductions in lean financial times.
3. Makes long-term transit planning difficult because the level of funding is not known from year to year, and does not provide a sense of permanence for transit employees. As a result, staff morale can be negatively affected.

Local Government Funding

Tribal, county, or city funding can be provided out of that local government's general fund as part of the annual budget. The proportion to be paid for by the various local government entities is again something which would be determined both on the ability to pay and on the benefit accruing to each. The advantages and disadvantages would be the same as those for voluntary assessments.

The appropriate split between the various local government entities is heavily dependent upon the service alternative selected for implementation. In many multi-jurisdictional service areas, participating tribes, municipalities, and/or counties enter into a service contract that sets forth a mutually-agreeable cost sharing formula, typically based upon the vehicle-hours or vehicle-miles of service provided within each jurisdiction.

Countywide Sales Tax

Sales taxes are the financial base for many transit services in the West. This is the most common form of local dedicated revenues across the country. In Utah, the ability of local jurisdictions to impose a ¼-cent sales tax to fund public transportation was granted in 1988 by Public Law 59-12-501. A simple majority vote is required for passage. In addition, the law allows for the tax to be applied in a public transit district that bifurcates a county.

To identify estimates of the funds that would be generated by sales tax for transit for the future, the historical growth in sales by jurisdiction is considered. The forecast growth factor is estimated by factoring the base year taxable sales by one-half of the average increase between the last few years.

Advantages

1. Revenues are relatively stable and can be forecast with a high degree of confidence.
2. It is simple to collect, as the mechanisms to collect tax are already in place.
3. It provides a flexible source of funding that can be used for capital, maintenance, or operating, and for highway, transit, or non-motorized transportation modes.
4. Allows the community to generate revenues from visitors to the area, who increase the need for services but do not pay property taxes.
5. Sales tax is a very common and accepted form of taxation for support of public transportation in the United States.

Disadvantages

1. Would require state legislative approval and a vote of the people to implement. Recent opinion of additional taxes has not been favorable.
2. Could be seen as inequitable to residents not served by transit. This disadvantage could be offset by the fact that sales tax could be rebated to incorporated areas not served by transit.
3. Transit services would face competition from other services which may seek to gain financial support through sales tax (cultural resources, parks, etc.).
4. Funding from sales tax could drop in recession years.

Experience in sales tax initiatives for smaller counties suggests the following points:

- A specific program to be funded by the tax increase is key; voters tend to reject financing a "blank check."
- A balanced funding program, including highway and traffic safety improvements along with transit elements, tends to increase the chance of successful passage.
- An extensive and well-funded election campaign is critical to passage, including a dedicated and energetic proponent group.

Countywide Property Tax

The property tax is an additional feasible source of subsidy for transit services. A property tax could be levied by the county commissioners and dedicated to funding of transit services. However, this option places the greatest burden on property owners, who are historically relatively conservative, as well as politically active. As a result, passage of a property tax is typically a "hard sell" to voters.

Advantages

1. Burden is uniform on all property.
2. Tends to be progressive—those most able to pay are those that tend to be impacted.

Disadvantages

1. May require vote for dedicated tax.
2. Non-residents do not pay to support the system. Any system which directly supports tourism should gain revenue from the tourist industry.
3. Initial feedback on tax ideas showed an unfavorable opinion of tax increases of any kind.
4. Collecting property taxes places the greatest burden on property owners. Because an inverse relationship between income and ridership is recognized, this proposal would result in the following quandary—those most able to pay are those who use the system the least.

Educational Subsidy of Transit Service

Snow College, Delta Technical Center, Central Utah Educational Service Center, University Center at Richfield, and Sevier Valley Applied Technology Center may be critical components to the Six County Area transit system. These educational centers may benefit greatly from transportation service to their locations. One issue may be the financial support given versus benefits derived. Good examples

of how other educational institutions around the country support the local transit service are:

- **Utah State University in Logan:** Two dollars of all student fee levels is dedicated to the shuttle service on campus.
- The **University of Kentucky, Lexington** provides a \$360,000 grant to LexTran to operate services at the University. The present grant amount, however, does not cover the fully allocated costs of these services or the cost of capital equipment required to operate the services. To help reduce the difference, university officials are contemplating adding a "transit fee" to the student body fee.
- **Fort Lewis College in Durango, Colorado** contributes approximately \$45,000 to "The Lift" for service to the campus. These funds are generated through a student activity fee, which gives students a semester pass good for unlimited use of the transit system.

Local Option Motor Fuel Excise Tax

The Local Option Motor Fuel Excise Tax would be under the Utah state codes where counties would be authorized, with voter approval, to impose a motor fuel tax of up to a certain cents per gallon. Counties would only be able to impose this tax in increments of a certain cent(s) per gallon. While these taxes may only be used for the "construction, reconstruction, maintenance, and repair of public streets and roads," they could be used to offset an increase in county general funding for transit. (Counties and municipalities together receive 14 percent of the state fuel tax revenues.)

Advantages

1. Administrative procedures are already established for the state fuel tax and would be relatively easy to expand those procedures for local tax purposes.
2. Although relatively small, the additional cost of fuel to drivers of single-occupant vehicles could encourage more people to use transit.
3. Increasing auto costs dispels the common myths that roads are "free" and that they are not government subsidized.

Disadvantages

1. No tax of this kind has yet been approved by voters in the State of Utah.

2. Cannot be used for transit. Any additional revenues generated through this measure do not guarantee any offset to transit.

Local Business Support

Commercial businesses (retail, restaurants/bars, lodging, etc.) can also benefit from transit. Employees in the region can commute on public transit, allowing businesses to take advantage of a larger labor pool. Businesses could also realize savings through reduction of parking for employees, converting that area to developable land. Hotels and motels could offer guests shuttle services to local retail areas and other points of interest. Hospitals and health providers may subsidize trips to medical facilities.

To the degree that the business community benefits from transit service, it is appropriate that it help support transit. In terms of monetary options, businesses could pay a voluntary assessment and/or support the Six County Area transit system if it were to pursue taxation or other alternative requiring public approval. In terms of non-monetary options, businesses can work with the transit system and other providers to better tailor existing services to local business and employee needs. (Advertising, mentioned below, is another form of mutually beneficial business support.)

Advantages

1. Businesses which benefit directly or indirectly from the provision of transit services would contribute to the expense of the transit operation.
2. Business support of the transit system may generate substantial savings by allowing those businesses to reduce the land/infrastructure costs of parking and/or provide additional services to their clients without purchasing their own vans (i.e.; hotels, etc.).

Disadvantages

1. The benefits which are typically seen by businesses are relatively small and there is unlikely to be significant support for financial contributions to transit service.
2. Additional sources of local funding would still be required.

Real Estate Transfer Tax

A tax would be levied on each real estate transaction which takes place within the counties. This tax would also be a dedicated tax for financing of transit services.

Advantages

1. The tax is paid by the buyer rather than the seller.
2. The tax falls largely on new- and second-home buyers and thereby generates new revenue as demand for additional services is created.

Disadvantages

1. Annual receipts are tied closely to economic swings. This makes transit susceptible to budget squeezes during a recession.
2. Future growth ends up paying for the existing funding needs of the transit system, which may not be equitable.
3. Local support for this measure is doubtful if it inhibits growth.

Lodging Tax

The appropriate use of lodging taxes (a.k.a. occupancy taxes) has long been the subject of debate. Historically, the bulk of these taxes are used for marketing and promotion efforts for conferences and general tourism. In other areas, such as resorts, the lodging tax is an important element of the local transit funding formula. A lodging tax can be considered as a specialized sales tax, placed only on lodging bills. As such, it shares many of the advantages and disadvantages of a sales tax. Taxation of this type has been used successfully in Park City, Utah; Sun Valley, Idaho; and Durango, Colorado.

Advantages

1. Lodging taxes place virtually all of the financial cost on visitors, which is relatively acceptable to most local voters.
2. Revenues are relatively stable and can be forecast with a high degree of confidence.
3. As a regional center with several tourist attractions, the Six County Area is likely to realize a moderate level of revenue potential.

Disadvantages

1. A lodging tax would require voter approval.
2. A lodging tax could encourage visitors to pass through the area to a place where there are no such taxes.
3. Direct benefit to lodging establishments would have to be provided to garner support.

Transportation Impact Fees

Traditional methods of funding the transportation improvements required by new development raise questions of equity. Sales and property taxes are applied to both existing residents and to new residents attracted by development. However, existing residents then inadvertently pay for public services required by the new residents. As a means of correcting this inequity, many communities nationwide faced with strong growth pressures have implemented development impact fee programs that place a fee on new development equal to the costs imposed on the community.

Previous work by LSC indicates that the levy of impact fees on real estate development has become a commonplace tool to ensure that the costs associated with a development do not fall entirely on existing residents. Impact fees have been used primarily for highways and roads, followed by water and sewer projects. A program specifically for mass transit has been established in San Francisco.

Urban Transportation District Financing

Transportation districts are empowered by state statutes to levy taxes in order to raise revenue to finance the function of the special district. This alternative applies only to the institutional alternatives which include special districts. This method constitutes a variation on property taxation, and the advantages and disadvantages would be the same as those mentioned above. This source of funding also has the disadvantages associated with the strength of another governmental entity.

Advertising

One modest, but important, source of funding for many transit services is on- and in-vehicle advertising. While the potential funds generated by advertising are low compared to other financing methods, they should be considered a viable alternative for attracting local business support of transit.

Grants

Grant writing may be a successful strategy, especially for capital purchases which cannot be covered by federal funding in a timely manner. This method of finance was successful for County Express (NECTA) in northeastern Colorado.

In 1993, the County Express system serving six counties in rural northeast Colorado was \$107,000 in debt with no reserves for operation in 1994. After the submission of 112 grant applications, 27 grantors responded, 10 of whom had funding. By applying for grants, many only tangentially related to public transit, the County Express system succeeded in finding \$275,000 of new money, operating services in 1994, and reducing its debt to only \$789.

PASSENGER FARES

Description

Passenger fares have been and remain an important source of funding for transit services. As fares make transit funding more equitable (those who benefit from the service pay at least part of the costs), a fare system has the advantage of increasing the political acceptability of transit.

Advantages

1. This funding source is seen as being equitable, in that the direct beneficiaries of transit service are required to pay.
2. Fares can be very flexible—they can be reduced for portions of the population (such as elderly and handicapped) who are least able to pay.
3. Charging fares increases the political acceptability of transit service.
4. When the available supply of transit service is exceeded by need, fares can ration service so that those who most need the service (and are thus most willing to pay) are provided with service.

Disadvantages

1. Fares reduce the attractiveness and convenience of transit service, thereby increasing parking and traffic problems.
2. Fares can potentially eliminate the availability of transit service from those who, due to poverty, need it most.
3. The collection of fares requires fare counting and accounting procedures, with associated costs.
4. Fares cannot be expected to cover total costs, or even operating costs.

CONCLUSION

Experience with transit systems across the nation underscores the critical importance of dependable (preferably dedicated) sources of funding if the long-term viability of transit service is to be assured. Transit services dependent on annual appropriations and informal agreements, such as those in Flathead County, Montana; Teton County, Wyoming; and Prowers County (SEATS), Colorado have suffered from reduced ridership (as passengers are not sure from one year to the next if service will be provided), high driver turnover (contributing to low morale, and a resulting high accident rate), and inhibited investment in both vehicles and facilities.

In addition, the advantages of financial stability indicate that a mix of revenue sources is prudent. The availability of multiple revenue sources helps to avoid large swings in available funds which can lead to detrimental reductions in service. As the benefits of transit service extend over more than one segment of the community, moreover, dependence on more than one revenue source helps to ensure that costs and benefits are equitably allocated.

CHAPTER IX

Needed Resources

Before transit can be provided, a myriad of capital items are required. These capital items required for public transit service consist of vehicles, vehicle maintenance facilities, passenger amenities such as shelters, benches and park-and-ride facilities.

TRANSIT FLEET

Vehicle Alternatives

Depending on the service alternative chosen, the appropriate vehicles, acquisition strategy, and funding implications will be presented as part of the draft plan. In accordance with the requirements of the Americans with Disabilities Act (ADA), all vehicles must be wheelchair accessible; i.e., provided with a wheelchair lift or ramp and one or more wheelchair tie-down positions based on vehicle size.

Purchase New Buses

Purchasing new buses has the disadvantage of being very costly. The cost of a 30-foot transit coach with a wheelchair lift is approximately \$150,000. A mini-bus with a wheelchair lift costs approximately \$50,000.

Purchase Used Buses

The cost of a serviceable used vehicle is only a small fraction of the original price—on the order of 10 percent. It is therefore financially feasible to purchase a high proportion of backup vehicles, such as two vehicles for every one to be put in service. It should be noted that if they are purchased from an FTA grantee, only the local share would need to be bought out as the federal share could be transferred.

Vehicle Leasing

Leasing vehicles provides the advantage of not requiring a long-term commitment; the system can make changes from season to season in the type of vehicles which are leased. Additionally, costs are spread over the term of the lease rather than being incurred all at once. Finally, leasing vehicles provides an opportunity for active private sector participation.

There are disadvantages to leasing as well. Over the long-run, lease costs typically exceed the purchase cost. Additionally, with short-term leases, the cost of leasing is subject to the fluctuations and uncertainty of the market. Finally, if long-term leases cannot be negotiated, service reliability becomes questionable, jeopardizing ridership.

Use Existing Vehicles

The fourth alternative is to use vehicle resources which exist within the Six County region. There are approximately 20 vehicles, primarily vans, which are used by the senior centers in the region. The majority of these vehicles were purchased using FTA funds. Most of the vehicles have a relatively low utilization, supporting senior center programs, and could be used for additional transportation services.

Provide Bike Racks on Buses

The concept of bike racks on public buses has gained widespread acceptance over recent years, particularly in smaller transit systems, and has proved popular in all cases. As an inducement to increase transit ridership as well as to encourage non-motorized forms of transportation, it is appropriate to place bike racks on all buses for the Six County Area. A reasonable cost for a two-position, front-mounted rack is approximately \$700 per vehicle. These costs could be reduced if a local cycling store could be recruited to provide the racks at reduced cost. A few examples of agencies using bike racks are Los Angeles County Metropolitan Transportation Authority using stainless steel racks that hold two bicycles apiece. Also, the Central Contra Costa Transit Authority of Concord, California is currently providing front-mounted bicycle racks on their entire fleet.

The most common type of rack is placed on the front of the vehicle (so the driver can watch loading and unloading), and has space for two or four bikes. These racks are available on a "first-come/first-served" basis, and are provided with a notice indicating that the passenger is liable for all damages. Passengers must be able to load and unload their bike on their own. Bikes fitted with child seats are typically prohibited from using the racks, as the seat could block the buses turn signals. Operational problems associated with use of the racks can be minimized through the development and distribution of a pamphlet regarding the correct use of the rack.

The initiation of bicycle service could be a good opportunity for a promotional campaign for environmentally friendly citizens of the Six County Area. The only drawback of bike racks is the additional time necessary for placing the bikes on and removing the bikes from the racks.

FACILITIES

Vehicle Maintenance Facility

To conduct proper preventive maintenance procedures, adequate facilities are required. While these facilities may not need to be new, they do need to accommodate adequate parts storage, meet safety requirements, and provide necessary equipment, facilities, and room for maintenance activities. Functional areas should be located in an efficient and safe proximity to each other. The facility should accommodate multipurpose activities rather than a facility with many areas for specialized activities, which is often a rule at medium and large transit agencies. Adequate facilities must provide the following functions:

1. Administrative employee office space.
2. A driver/mechanics' room, serving as both a locker area and as a lunch room.
3. A radio/dispatching area, assuming room for the AVL/real-time dispatching equipment and personnel.
4. A money room, located on the bus service line. (Assuming a fare is instituted.)
5. A multipurpose room which would be used as a training/meeting room.
6. A vehicle maintenance area, providing three general maintenance bays.
7. Bulk storage space.
8. Separate parts storage space (including tires).
9. A tire repair area with cage.

10. A separate welding shop, concentrated to OSHA standards.
11. A battery storage room.
12. Transit vehicle parking.
13. Employee and visitor vehicle parking.
14. A bus service island, with a service lane including a bus washing facility.

With recent changes in federal regulations regarding hazardous waste contamination, a thorough review of relevant environmental regulations is warranted prior to serious consideration of obtaining an alternative facility site. Prior to legal site acquisition proceedings, it is strongly recommended that an environmental inspection and assessment be obtained by the Six County Area transit agency on any site it is seriously considering. Responsibility for cleaning up environmental contamination conveys with ownership of land. The cost of cleanup is often extremely expensive; it is not uncommon for the cost of the cleanup to exceed the land and project costs combined.

The maintenance facility in Nephi is adjacent to the Bethphage shops and is used by Bethphage for minor vehicle maintenance. This facility was built to support a public transportation operation, but has had little or no use for several years. The facility has two maintenance bays with vehicle lifts. There is also a bus wash bay. The facility has room for parts storage, dispatching, and offices. Outside vehicle parking space could be provided on the adjacent paved areas, but there is no indoor vehicle storage space other than the maintenance and wash bays. The facility would need some rehabilitation, primarily due to lack of use and minimal maintenance. Fuel storage tanks and waste disposal equipment may be outdated and would require replacement. The facility would have to be furnished with tools, shop equipment, furniture, and other items to support transit operations.

Passenger Shelters and Benches

The "street furniture" provided by the transit system is a key determinant of the system's attractiveness to both passengers and community residents. In addition, they increase the physical presence of the transit system in the community. Bus benches and shelters can play a large role in improving the overall image of a transit system, and in improving the convenience of transit as a travel mode. More importantly, shelter is vital to those waiting for buses in harsh weather conditions. Adequate shelters and benches are particularly important in attracting ridership

among the non-transit-dependent population—those that have a car available as an alternative to the bus for their trip.

A standard should be established that shelters should be placed at all feasible locations with high daily passenger boardings. Preference should be given to locations with a high proportion of elderly or disabled passengers. Many regional transit agencies have had benches provided by advertising firms at no cost to the agency.

The cost of modern glass and steel shelters averages approximately \$6,000. Maintenance and repair of vandalism to bus benches and shelter is a very minor cost. Modern benches and shelters are very durable and resistant to vandalism. As a result, cleaning and maintenance costs are minor.

Within the Six County Area, passenger shelter might be provided by existing buildings. For example, the senior center would serve as the passenger shelter for the bus stop serving the senior center. Unlike major fixed-route systems where buses do not stop at every designated bus stop, a rural system must offer a higher level of service. People should be able to wait inside nearby buildings without fear of missing the bus.

Administrative Capital Needs

Any transit administrative office would have to be furnished with the typical office equipment and supplies, including desks, tables, copier, and computers. Office space would be needed with the size determined by the number of people and the functions. Space is available in the transit maintenance facility in Nephi, but there are no furnishings.

Computer hardware and software need to be purchased to provide an efficient office operation and to operate the transit service. Scheduling and dispatching should be done using a computer-aided system. This would require computers and software. Radios would also be required with a repeater system to reach the entire service area.

Park-and-Ride Facilities

Service to Utah County has been identified as a need and an element of several service alternatives in the Six County Area. Facilities for passengers to drive to a bus stop and park should be provided as part of this service. The facilities could be existing parking lots such as churches and retail centers in the various communities.

Bicycle/Pedestrian Facilities

At one end of their trip or the other, virtually all transit passengers also travel on foot or on bicycle as part of their transit trip. A key element of a successful transit system, therefore, is a convenient system of sidewalks and bikeways serving the transit stops. The Six County Area transit agency should work with the local jurisdictions to review construction plans and scheduling priorities for pedestrian and bicycle improvements to best coordinate with transit passengers' needs.

In addition, bike racks should be placed at major transit stops, particularly those stops in rural areas that serve low-density residential areas. These racks should be located on a case-by-case basis, considering the space available, the type of passenger served by the stop, and the level of boarding activity.

Advanced Public Transit System Technologies

A key consideration in long-term planning is the impact of improvements in technology that can benefit transit services. In recent years, these technology research and development programs have been incorporated into the Intelligent Transportation System (ITS) concept. Although it sounds like it has little to do with transit and, in fact, its roots have more to do with military applications, ITS applications do hold promise for public transportation. The application elements of ITS for public transportation are known as Advanced Public Transportation Systems (APTS).

APTS basically have to do with the application of many high tech developments to the business of transportation. Most of the APTS developments come from the military and financial arenas. These include the use of Global Positioning Satellites (GPS) to determine the exact location of an object through triangulation, radio

frequencies, and computers. The same concepts used to track nuclear warheads, submarines, and spy on other countries can be employed for other purposes, notably to improve our transportation systems. Likewise, from the financial arena, the same principles used in credit and debit cards and for building security systems can be applied to monitor persons using transit service by noting where they board, where they alight, debiting their fare from a bank account, or charging their fare to the appropriate human service agency.

Several key conditions have evolved to make APTS applications more attractive. Technology has progressed to the point that the applications are finding their way into the general market. The cutting edge applications of yesterday are now relatively commonplace. Currently, APTS applications are being used in the State of Utah and are realistic options for the Six County Area.

Advanced traveler information systems are intended to forewarn the public of delays on the transportation network. They may take the form of sign boards on the highway which advise travelers of congestion ahead, or they may be in the form of a traffic report accessed on television or over the phone.

Vehicle location systems employ one of the several means of determining the location of a vehicle. By monitoring the location of a vehicle historically and in real-time, dispatchers and planners can better refine schedules or can dispatch the closest vehicle to a location. This application holds much promise for public transportation service, especially in suburban and rural environments.

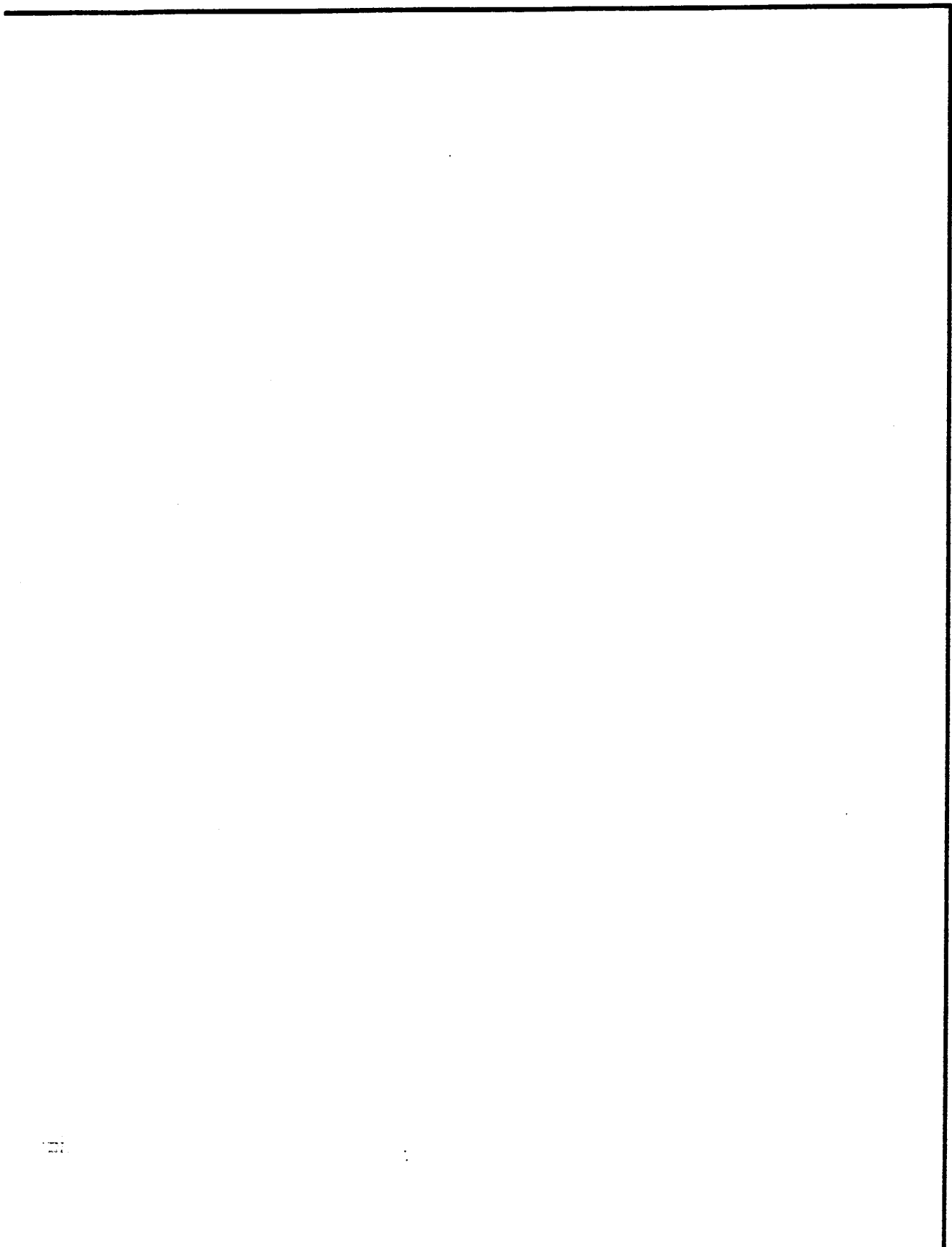
A logical link to the Automated Vehicle Location (AVL) systems is real-time ride-matching and dispatching. Since the ability to know the location of vehicles exists through sophisticated matching and scheduling programs, it is now possible to dispatch transit vehicles on-demand and to optimize the work load of all the vehicles in a system based on actual and historical demand. These systems function by examining where vehicles are, where the vehicles are heading, and how full the vehicles are at the time a ride-request call is received. Through a series of decision trees, the computer matches the ride request to a vehicle and dispatches the ride order to the driver or, if no capacity on the vehicle, schedules

the ride request to be filled by the first available vehicle. Providing transportation services in this flexible format may have significant and fundamental impacts on how service is provided. The need to operate fixed schedules theoretically may yield in favor of an on-demand system. Most likely, a balance between the two, based on actual demand, will result.

The existence of real-time dispatching and ridematching systems creates the need for linking the public to the service. The smart traveler system concept provides a quick link by phone, kiosk cable, computer, etc. to the service dispatching system. A caller would request a ride; the system would examine vehicle availability in response to the ride request and inform the caller where and when the rider would be met. The system may also suggest other mode choices available to the caller. The entire transaction need take only a few minutes. If an acceptable match cannot be made, the system may offer to fill the request with a taxi ride.

SUMMARY

This chapter has identified many resource needs to provide public transit service. In the Six County Area, there are many resources which could be used as part of a coordinated transit system. Vehicles are available and could be used as part of the transit service. A maintenance facility, funded through FTA, is located within the Six County Area and would be available for use by a coordinated transit system. The major cost to start a transit operation would be the acquisition of office furnishings, computers, dispatch software, and supplies for the maintenance facility. Other needs should be considered in the future as the service matures.



Potential Transit Providers

INTRODUCTION

There are several potential providers for transit service in the Six County region. These potential providers have been identified based on the types of service considered as service alternatives. This chapter describes the providers with the greatest potential for the study area.

UTAH TRANSIT AUTHORITY (UTA)

In 1995 the Utah Transit Authority completed an annexation study for North Sanpete County, including Ephraim, Fairview, Fountain Green, Manti, Moroni, and Mount Pleasant. This study addresses the implementation of transit in a rural area and provides an excellent example of potential transit resources for the entire Six County Area. There were three potential system operating designs that were explored—commuter service to the Provo/Orem area, local service to the communities north of Sanpete County, and a combination of express commuter and local service. For these options, three service implementation options were discussed—regular UTA transit using 40 passenger buses, county operated service using 15 passenger vans, and services provided by contracted private carriers.

Regular UTA Service

Funding for transit purposes comes from a percentage of sales tax determined by individual municipalities. The operations and maintenance cost for regular UTA service on buses with seating capacity for 40 passengers is approximately \$18.90 per hour and \$.68 per mile. This is typically funded through a one-fourth of one percent sales tax. UTA provides no assistance funds to rural areas; however, funds may be available through the Utah Department of Transportation. Without taxation, it is unlikely that this option could be implemented.

Individual County Operated UTA Service

County operated service utilizes 15 passenger vans and runs at more frequent intervals than regular UTA service. The cost of operating this type of service is generally lower than regular UTA service, but would still require taxation and ridership.

SIX COUNTY AOG TRANSIT SERVICE

The Six County Association of Governments qualifies as a political entity that can implement a transit system funded by taxation. The constituency of the political entity must support any increase in tax. Because the Six County AOG is a quasi-governmental organization, each individual county would have to support the increase in tax. The benefits of implementing a Six County-wide transit service would be the abundance of existing resources, most of them senior center vans and buses. The use of senior center resources may be possible if administered centrally. A single senior center could not take the lead. However, centers in proximity to each other could potentially work together to provide service to more than one community, creating a larger network of service. The senior centers are currently supported by a combination of public funding and private donations. A connected transit service would rely on additional funding sources to support full-time drivers. It is important to note that these resources could not be expanded at the expense of a decline in service to existing patrons.

The senior center vehicles could be used to provide the in-town circulator services and the services connecting the communities as presented in Chapter VI. There are vans and buses which have the capacity to provide these services. The staffing would have to be increased to provide drivers and administrative staff.

OTHER POTENTIAL CARRIERS

School Districts

Each school district was contacted by telephone and asked if their transportation services could be extended to the general public. Responses were difficult to obtain as the schools are currently out of session. To date, the following districts have not responded: Juab, Millard, North Sanpete, South Sanpete, and Tintic. The

Piute School District responded by saying that the transport of members of the community at large should not rest with the school districts. Wayne County School District responded by saying that members of the community at large should not be mixed with school children. The Wayne County School District did not oppose, however, the transport of known individuals on a scheduled route. Sevier School District has also expressed concern over transporting the public on school buses designated for children.

Crabtree and Harmon

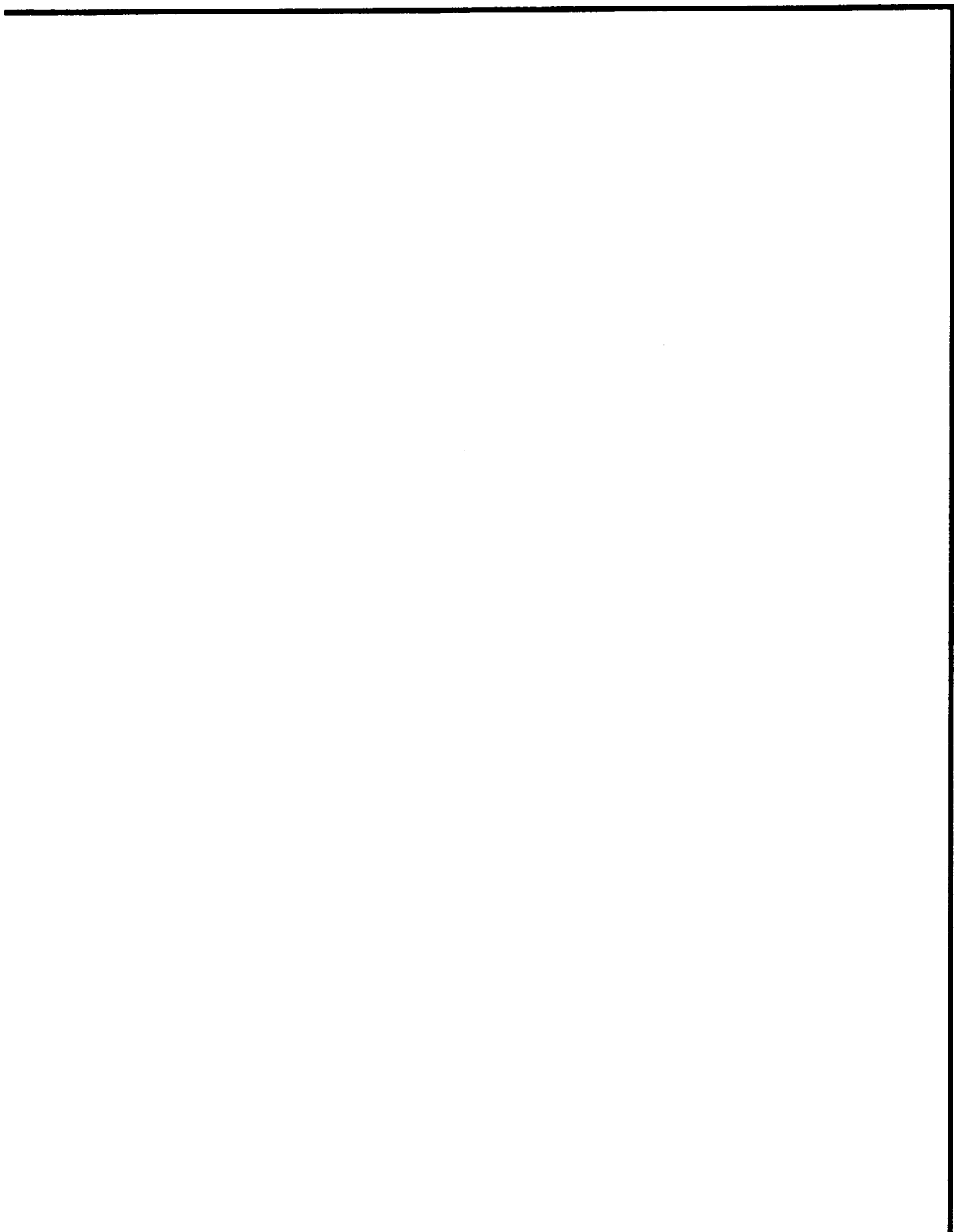
Crabtree and Harmon currently leases school buses to various school districts in Southern and Central Utah. They also provide charter service on a demand basis. Although the company is not currently equipped to provide regular service to any given area, they are interested in the possibility of expanding service should additional funds become available.

Snow College

Snow College currently operates two shuttle buses on campus. Snow College could be considered as a potential provider for the service connecting the college with Sevier Valley Technical College. Adequate service would likely require an additional two shuttle buses as Sevier Valley Technical College does not operate any transportation service for students. Under agreement, services provided to students of Snow College cannot be extended to the general public, and therefore can only be used as an option for students of these two colleges.

Sevier County Corporation

The Sevier County Corporation provides transportation services for the senior centers in Sevier County. The Six County AOG contracts with the Sevier County Corporation to provide the transportation services. This corporation could provide service through contracts, but the service area may be limited to Sevier County.



CHAPTER XI

Implementation Plan

INTRODUCTION

Following review of the various service, institutional, and financial alternatives presented in the previous chapters, a preferred alternative has been developed for the Six County Area. The preliminary recommendations were presented to the Transit Advisory Committee and the preferred alternative was discussed. This chapter presents the recommended implementation plan for the preferred alternative. The proposed schedule for implementation is shown in Figure XI-1.

ORGANIZATIONAL PLAN

Establish Transit Board

Recommendation

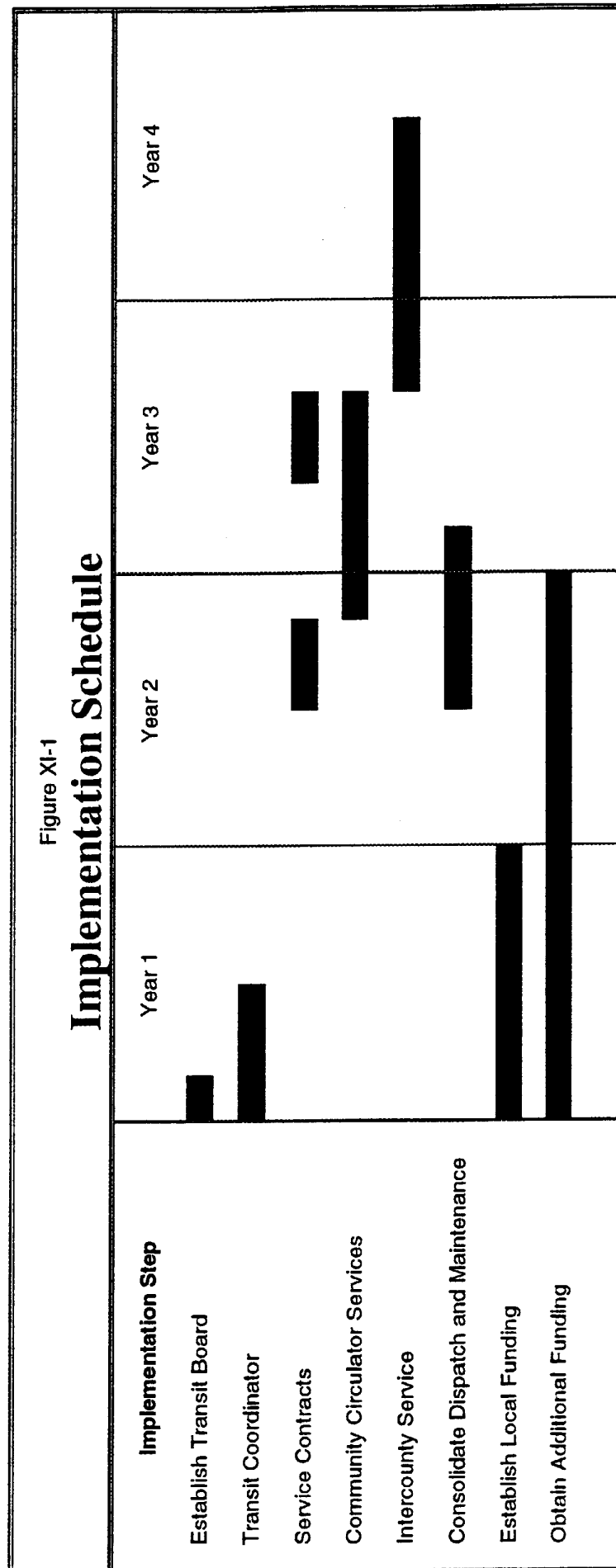
The recommended institutional location for coordinated public transportation services is the Six County Association of Governments. The AOG Board must agree to and approve the implementation of public transportation services as a function of the AOG. There is a need for a group to advise and oversee the transit operation, both during and following implementation. The AOG Board should establish a Transit Advisory Board, made up of local government officials, staff, and citizens of the region.

Benefits

- The AOG Board formally approves of the service implementation.
- A local advisory group will be available to promote the new public transportation services, to advise staff on implementation of the service, and to oversee the operation following implementation.

Timing

Approval of the implementation plan should take place during the fall of 1998. As part of the approval, the AOG Board should officially establish the Transit Advisory Board and task the Transit Advisory Board with completing the implementation program.



Responsibilities

The AOG Director will be responsible for presenting the plan to the AOG Board for approval. The AOG Director will also be responsible for recruiting members of the Transit Advisory Board to be appointed by the AOG Board.

Implementation Steps

1. Present the Transit Feasibility Study and implementation plan to the AOG Board for approval.
2. The AOG Board formally approves the implementation plan and establishes the Transit Advisory Board.
3. The AOG Director recruits members to serve on the Transit Advisory Board.
4. The Transit Advisory Board members are appointed by the AOG Board.

Establish Transit Coordinator Position

Recommendation

A Transit Coordinator position should be established in the AOG. The Transit Coordinator will assume the responsibilities of implementing the preferred plan and managing the day-to-day operations of the transit service when the service begins operation. The Transit Coordinator should report directly to the AOG Director. The current staff in the AOG offices do not have adequate time to fulfill this role. The implementation and coordination of transit service in the six counties will require a full-time position. This person will also be responsible for preparing grant applications for funding and for preparing reports which must be submitted to the various funding agencies.

Benefits

- Responsibilities for implementation of the recommended plan will be given to one individual.
- Sufficient staff will be available for implementation and a manager will be in place when service is initiated.

Timing

The Transit Coordinator position should be established when the implementation plan is adopted by the AOG Board. The position should be funded in the next fiscal year budget (Year 1 of this plan) and hiring should take place when the position is funded.

Responsibilities

The AOG Board must approve and fund the new position and the AOG Director will be responsible for hiring a person to fill the position.

Implementation Steps

1. The AOG Board approves the new position of Transit Coordinator.
2. The AOG Director submits a budget with funding for the Transit Coordinator position.
3. The AOG Board approves funding of the Transit Coordinator position.
4. The AOG Director recruits and hires a Transit Coordinator.

SERVICE PLAN

Set Up Service Contracts

Recommendation

There are several transportation providers in the Six County Area which may be used to provide transit service. The greatest need in the area is a coordinated effort to make use of available resources. Existing providers such as the Sevier County Corporation could continue to provide service, but would do so as part of a coordinated effort. The Ghandi Center has indicated a desire to provide needed transportation services and could do so as part of a coordinated effort. As the service plan is developed and specific services are implemented, service contracts should be established with providers for the appropriate services. For example, the community circulator service in the Richfield area could be provided by the Sevier County Corporation, while service between communities might be provided by Crabtree and Harmon or the Ghandi Center. Opportunities should be offered to potential new providers who might be interested as well.

Benefits

- Makes the best use of available resources without duplicating efforts.
- Competition among providers offers a lower cost of service.

Timing

The service contracts should be negotiated as each service component is planned and prior to implementation.

Responsibilities

The Transit Coordinator will be responsible for negotiating service contracts with the individual providers. The Transit Advisory Board and AOG Board will be responsible for approval of the contracts.

Implementation Steps

1. The Transit Coordinator and the Transit Advisory Board will develop the detailed service plan.
2. The Transit Coordinator and the Transit Advisory Board will identify potential providers for the specific service.
3. The Transit Coordinator will prepare a scope of services and a Request for Proposals for the specific service.
4. The Transit Advisory Committee will select the appropriate provider or providers.
5. The Transit Coordinator will negotiate the service contract with the selected provider or providers.
6. The Transit Advisory Board and AOG Board will approve the contracts.

Implement Community Circulator Services

Recommendation

Daily circulator service will be set up in the communities of Richfield, Nephi, and the Ephraim/Manti area. The circulator service will provide demand-response service within the community five days a week. Operating hours should extend from 7:00 a.m. to 6:30 p.m. The service may be phased in by beginning in only one community. The community which should be given the highest priority is Richfield because of the size and need in that area. Service in Richfield could be contracted with existing providers. Service in Nephi and Ephraim/Manti may require direct operation by the AOG.

Benefits

- Residents of the communities will have transportation service for access to schools, businesses, medical offices, and hospitals.
- Transportation services will be expanded beyond service only for the elderly to the general public.
- A coordinated system will make efficient use of existing resources.

Timing

The community circulator service should be initiated in Richfield by the end of Year 2 of the plan. The additional communities could also be served in Year 2 or implemented in Year 3.

Responsibilities

The Transit Coordinator will be responsible for implementing the community circulator services.

Implementation Steps

1. The Transit Coordinator will develop the detailed service plan for the community circulator service.
2. The Transit Coordinator and Transit Advisory Board will obtain local funding from the community to be served.
3. The Transit Coordinator will establish any service contracts which may be necessary.
4. The Transit Coordinator will develop and implement a program to promote the service prior to implementation.
5. The transit dispatch center must be established with telephone and communications capabilities.
6. The service will be implemented in the designated communities.

Implement Intercounty Service

Recommendation

Service from the Richfield area to Utah County should be provided two to three days each week. The route should serve communities between Richfield such as Salina, Gunnison, Manti, and Ephraim. The time schedule should correspond to UTA service and provide a connection to either the fixed-route service or demand-response service in Utah County. This service could be provided directly by the AOG or through a service contract. The service should also be extended to Loa one or two days a week. The Loa service would likely alternate with the Utah County service. This service would operate along the designated corridor, providing demand-response service as well as scheduled stops.

Benefits

- Residents of the Sevier and San Pete Valleys would have intercity access to Utah County and the Wahsatch Front.
- Public transportation service would be available between many communities in the Six County Area.

- Residents of western Wayne County would have access to businesses and medical facilities in Richfield.

Timing

The service to Utah County should be implemented in Year 3 or Year 4 of the plan.

Responsibilities

The Transit Coordinator will be responsible for preparing the detailed service plan, negotiating any service contracts, and implementing the service.

Implementation Steps

1. The Transit Coordinator will prepare the detailed service plan.
2. The Transit Coordinator and Transit Advisory Board will obtain local funding to support the service.
3. The Transit Coordinator will establish any service contracts which are necessary for the service.
4. The Transit Coordinator will develop and implement a program to promote the service prior to implementation.
5. The service will be implemented from Richfield to a transfer point in Utah County.

Consolidate Transit Dispatch and Vehicle Maintenance

Recommendation

The transit maintenance facility in Nephi should be used as a consolidated maintenance and dispatch facility for all transit services in the Six County Area. The facility has adequate space to provide the centralized reservations and dispatching function, as well as space and capabilities to provide routine vehicle maintenance. Repair will be required before the facility can be used and new furnishings will be required.

A single toll-free number should be provided for transit information and reservations. Anyone within the Six County Area should be able to call directly to the central dispatch office. The central dispatch office will function much as a transit broker. The request for transportation will be referred to the appropriate provider. All vehicles that are owned and/or operated by the Six County AOG should have routine maintenance performed at the central facility. Currently, vehicles are dispersed throughout the region. The vehicles should be consolidated into a single fleet which may then be used to provide the various services, including transpor-

tation to meal sites, community circulator service, and the service to Utah County. Each vehicle should display a common logo for the Six County transit service.

Benefits

- Individuals needing transportation service will be able to call one telephone number to request the service.
- Requests for transportation will be directed to the most appropriate provider.
- Centralized dispatching will ensure the most efficient use of available resources.
- Centralized maintenance will ensure consistent maintenance of all vehicles within the Six County Area.
- Vehicles may be dispatched to serve any part of the region, ensuring that vehicles will be available for needed services.

Timing

Repair and furnishing of the facility in Nephi should take place during Year 2 of the plan so that the facility is available prior to startup of individual services. Use of the facility should occur by the end of Year 2.

Responsibilities

The Transit Coordinator will be responsible for ensuring that the required repairs are made and that the facility is adequately furnished prior to occupancy. Bethphage should provide support in refurbishing the facility.

Implementation Steps

1. The Transit Coordinator will conduct a thorough investigation to determine what repairs are required and what furnishings and supplies will be needed.
2. The Transit Coordinator will submit grant requests to obtain the necessary funding to refurbish the facility.
3. The Transit Coordinator will hire dispatchers and a maintenance worker.
4. The Transit Coordinator and transit staff will move into the maintenance facility.

FINANCIAL PLAN

Establish Local Funding

Recommendation

Local funding must be provided to pay for the operation of a public transportation service. Local funding sources are primarily the counties and communities within

the Six County Area. Detailed operating budgets must be prepared and presented to the local governments. The financial plan in this document provides direction on the level of local funding which will be required, but the actual budgets must be developed as part of the implementation process.

Benefits

- Local funding displays a level of commitment on the part of the local governments and citizens.
- Provides a match to help secure matching federal funds.
- Helps to provide a service needed by local citizens.

Timing

Members of the Transit Advisory Board should begin the process of obtaining local funds immediately. Local governments should be prepared to incorporate local funding of transit as the transit budget is presented in the normal budget cycle. The Transit Coordinator will prepare the transit budget during Year 1 of the implementation plan.

Responsibilities

The Transit Advisory Board members will be responsible for presenting information to local governments and building support for the local funding. The Transit Coordinator will be responsible for developing the transit budget and presenting the budget to the local governments. Transit Advisory Board members should assist in presentations to the local governments.

Implementation Steps

1. Transit Advisory Board members meet with local government officials to present the need for local funding.
2. The Transit Coordinator prepares the detailed transit operating budget and presents the budget to the AOG Board.
3. The AOG Board approves the transit operating budget.
4. The Transit Coordinator presents the transit budget to the local governments which will be asked to financially support the transit service.
5. The local governments agree to provide the local funding for transit services.

Obtain Additional Funding

Recommendation

Additional funding will be required to cover the operating expenses of a public transportation system. Funding is available from the Federal Transit Administration through the Utah Department of Transportation. A grant application must be prepared and submitted to UDOT showing the service plan and the detailed operating budget. Other grants may be available. One potential source of funding is the Welfare-to-Work grant program, which is addressed in Chapter VIII under the Health and Human Services Funding section. Additional Welfare-to-Work grant funding may be available for transportation services in the Six County Area. Other potential sources were discussed in Chapter VIII. The Transit Coordinator should identify potential sources and submit applications to the appropriate agencies.

Benefits

- Additional funding will be available to cover the operating and capital expenses of the transit service.
- Outside funding leverages the local funding, providing more service than the local funding could support.
- Specific grant programs may provide transportation services for targeted groups.

Timing

The Transit Coordinator will prepare detailed budgets during Year 1 of the plan and submit grant applications during the first year as well. Submittal of the grant applications must correspond with requirements of the funding agencies.

Responsibilities

The Transit Coordinator will be responsible for preparing the transit budgets and grant applications. The Transit Advisory Board and AOG Board will be responsible for approving the transit budget.

Implementation Steps

1. The Transit Coordinator prepares the transit budget.
2. The transit budget is approved by the Transit Advisory Board and the AOG Board.
3. The Transit Coordinator prepares and submits grant requests.

Transit Budget

Operating Budget

Table XI-1 shows the projected operating budget for the first three years of the implementation plan. The operating expenses are based on the implementation steps outlined in this plan. A more detailed operating budget should be prepared and updated as the plan is implemented.

Table XI-1 Projected Operating Budget			
Operating Expenses			
Item	Year 1	Year 2	Year 3
Transit Coordinator	48,000	49,680	51,419
Office/Facility	5,000	5,000	8,000
Dispatchers			35,000
Maintenance Personnel			25,000
Vehicle Maintenance			40,000
Drivers			128,000
Fuel, Oil			90,000
Total	\$53,000	\$54,680	\$377,419
Operating Revenues			
Local	53,000	27,340	172,710
Federal/State		27,340	172,709
Fares			32,000
Total	\$53,000	\$54,680	\$377,419

Capital Budget

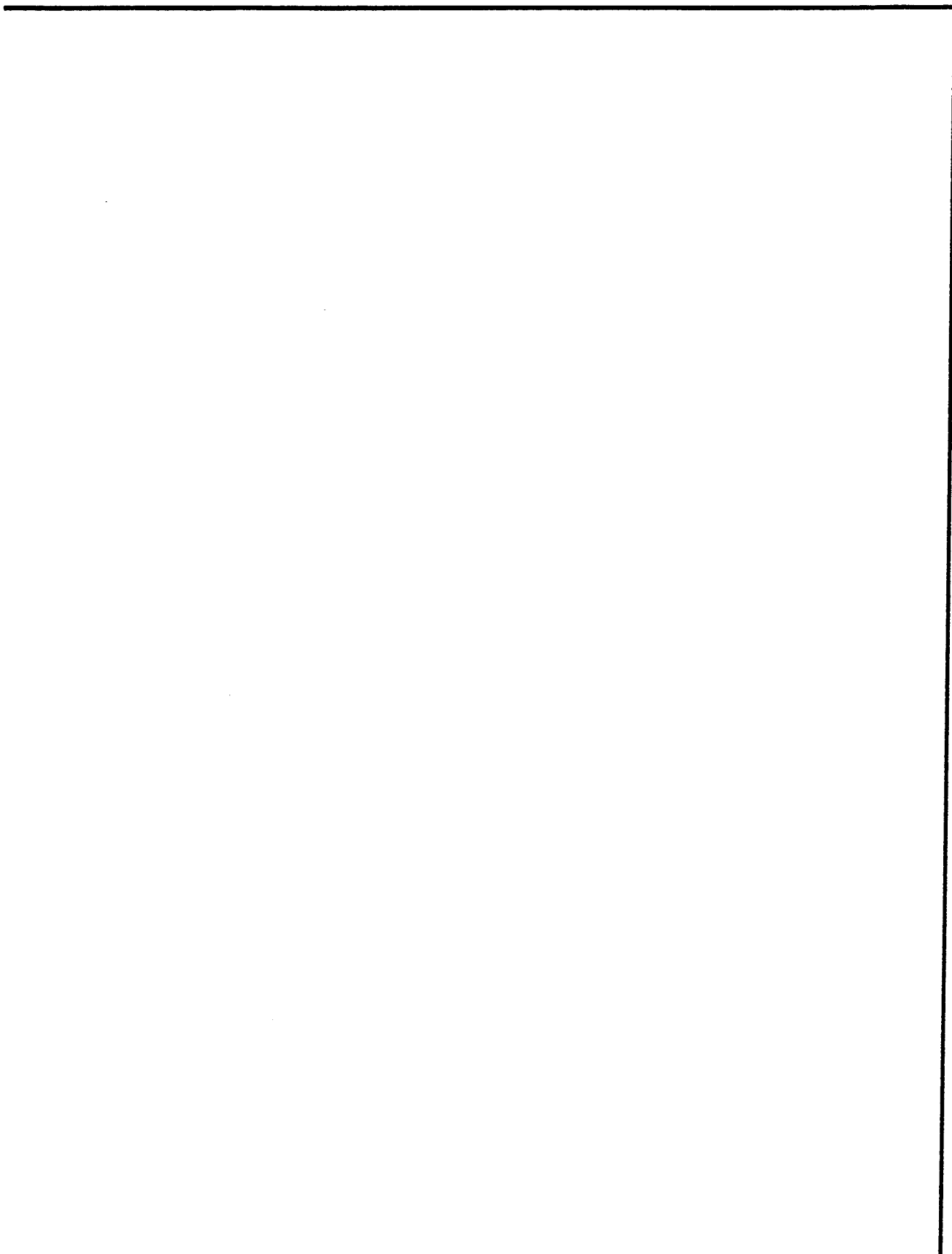
Table XI-2 shows the projected capital budget for the first three years of the implementation plan. A more detailed budget will be required based on the actual services to be provided, equipment needs, and repairs which may be required for the maintenance facility.

**Table XI-2
Projected Capital Budget**

Capital Expenses			
Item	Year 1	Year 2	Year 3
Vehicles	50,000	50,000	50,000
Facility Refurbishing		100,000	
Total	\$50,000	\$150,000	\$50,000
Capital Funding			
Local	10,000	30,000	10,000
Federal/State	40,000	120,000	40,000
Total	\$50,000	\$150,000	\$50,000

Note: Vehicle costs based on replacement of one vehicle per year.

Appendix A



TRANSPORTATION PROVIDER SURVEY

Agency Name: _____
Agency Address: _____

Date: _____
Phone: _____
Fax: _____

Primary Purpose of Agency: _____

Your Name and Position: _____

Transportation Service (Answer these questions for the transportation which you provide directly.)

1. What type of transportation services are operated?

2. What locations do you serve? _____
Please enclose any printed schedules or other materials describing your services.
3. Do you operate on fixed routes and schedules or on a demand-response basis?

4. On what days and during what hours do you provide transportation services?

5. Do you charge a fare for your services: Yes _____ No _____
If yes, what is the fare for each type of passenger?

6. What is the address of your central operating base?
Address _____ City _____ Zip Code _____
7. Are current client transportation needs being met? Yes _____ No _____
If no, what additional services are needed?

8. Why are these services **not** provided?
Lack of funds _____ Need vehicles _____ Need drivers _____
Other: Please specify _____
9. Is a client roster maintained? _____ Yes _____ No _____
If yes, how many clients are registered?

10. Please identify the total number of drivers by type: # Full-time _____ # Part-time _____ # Volunteer _____

Vehicles – Please complete the attached fleet roster. (Please identify anticipated replacement year.)

11. Number of vehicles in service on an average weekday? _____
Cars _____ Vans _____ Buses _____ Other _____ Total _____

Please continue to the next page...

12. Please indicate the total number of vehicles in service during each hour on your typical busiest day of the week.
- | | | | | | | | | | | | | | |
|-----|-------|-----|-------|-----|-------|-----|-------|------|-------|------|-------|------|-------|
| 6AM | _____ | 7AM | _____ | 8AM | _____ | 9AM | _____ | 10AM | _____ | 11AM | _____ | Noon | _____ |
| 1PM | _____ | 2PM | _____ | 3PM | _____ | 4PM | _____ | 5PM | _____ | 6PM | _____ | | |

Ridership and Clients

13. What types of passengers do you transport? (Indicate % of each group)
- | | |
|-----------------------------|-------------------------------|
| _____ % General Public | _____ % Elderly |
| _____ % Disabled | _____ % Students (Ages _____) |
| _____ % Agency clients only | _____ % Other (Specify _____) |
14. **Annual Service Characteristics** 1996 (or most recent year for which total data is available: (Period from _____ to _____))

	Directly Operated	Contracted	Total
# of One-Way Passenger Trips	_____	_____	_____
# of Vehicle Miles*	_____	_____	_____
# of Vehicle Hours**	_____	_____	_____
Operating Cost	_____	_____	_____
# of Days Operated	_____	_____	_____

*Vehicle miles are defined as the total number of miles traveled by transit vehicle(s).

**Vehicle hours are defined as the total number of hours transit vehicle(s) are in operation.

Total Number of One-Way Passenger Trips in 1995 _____

Total Number of One-Way Passenger Trips in 1994 _____

Please indicate the reasons for any major change in ridership:

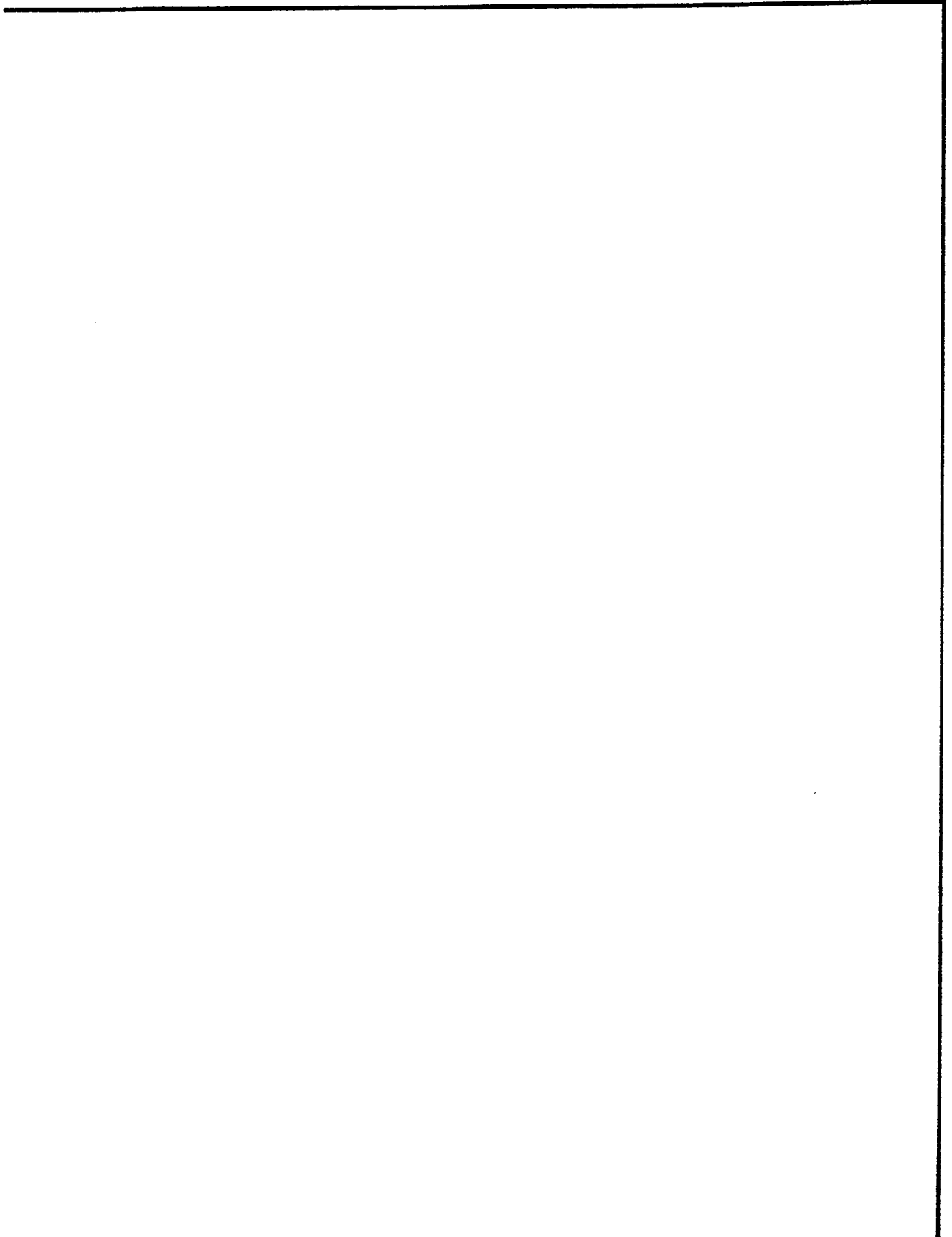
15. What are your sources of income for transportation? Please identify sources of operating income for 1996.

Operating Revenues

Fares/Donations	\$ _____
FTA Section 18	\$ _____
FTA Section 16	\$ _____
Title III (OAA)	\$ _____
Head Start	\$ _____
Developmental Dis. (DES)	\$ _____
ACTION	\$ _____
Voc. Rehab.	\$ _____
United Way	\$ _____
City	\$ _____
County	\$ _____
Tribal	\$ _____
Other:	\$ _____
Other:	\$ _____
TOTAL	\$ _____

If you have any questions, call Corinne Donahue of Leigh, Scott & Cleary, Inc. toll free at 1-800-677-1671 or Matt Riffkin of Fehr & Peers Associates, Inc. at 801-261-4700. LSC's fax number is 719-633-5430.

THANK YOU FOR YOUR COOPERATION!



Six County Transit Feasibility Study Questionnaire

1. What important issues face the Six County region, and how does public transit relate in importance to these issues?
2. How would you characterize transportation problems in the area? Describe particular problems?
3. How do the region's transportation problems affect economic vitality?
4. Is there a need for public transit in the region? If so, what is that need?
5. Who would benefit from transit service?
6. What trends, such as social, economic, and technical changes, do you think will affect public transportation needs over the next 10 years?
7. Transit seldom comes close to being paid for through the fares of the users. From where should funds come from public transit services?
8. Would the residents of the Six County Area support public transit financially?
9. What should be the highest priority for public transit services?
10. Taking our discussion as a whole, what would you suggest are appropriate goals for future transit service in the Six County Area?

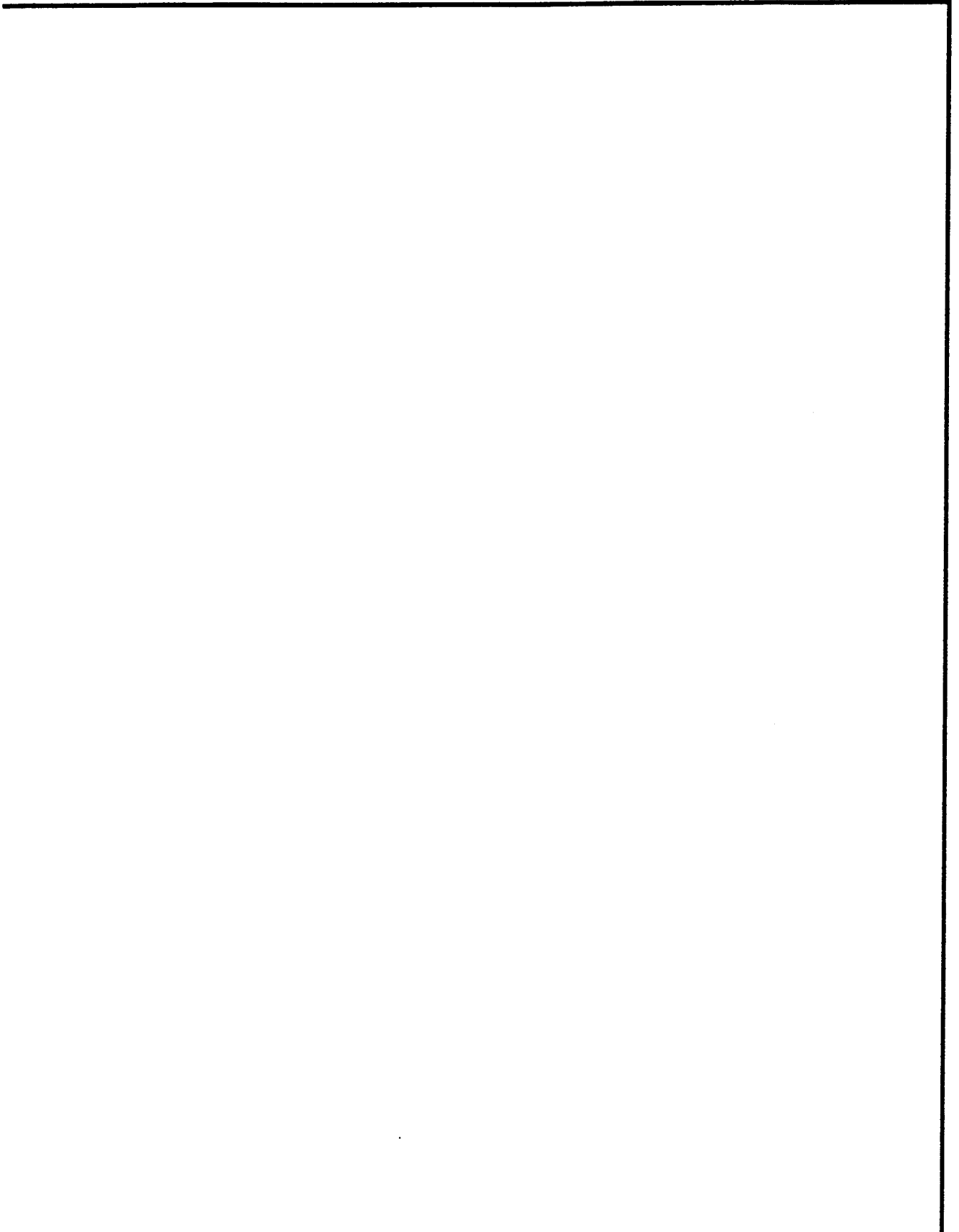
Please Return To: Robin Cohn, Fehr & Peers Associates, Inc., 64 E. 6400 South, Suite 330, Salt Lake City UT, 84107. Or Fax To: 801-261-0763, Attn: Robin Cohn
--

Status of Local Support Contact Persons

Title	First Name	Last Name	City/County	Reminder
Mayor	Rex	Friant	Annabella City	No answer
Mayor	Bill	Wiley	Antimony City	Responded
Mayor	Milton	Taft	Bicknell City	Reminder
Mayor	Roland	Beck	Centerfield City	Reminder
Mayor	Afton	Morgan	Circleville City	Faxed second copy
Mayor	Don V.	Dafoe	Delta City	Unavailable/out of town
Mayor	Valerie	Hopper	Elsinore City	Unavailable/out of town
Mayor	Gary L.	Anderson	Ephraim City	Responded
Mayor	Lloyd	Conder	Eureka City	Faxed second copy
Mayor	Ron	Giles	Fairview City	No answer
Mayor	Kelly	Miller	Fayette City	Faxed second copy
Mayor	Jer'e	Brinkerhoff	Fillmore City	Responded
Mayor	Dean	Hansen	Fountain Green City	Faxed second copy
Mayor	Jake	Albrecht	Glenwood City	Responded
City Administrator	Ray	Limb	Gunnison City	No answer
Mayor	Brent	Bennett	Holden City	No answer
Mayor	Earl	Utley	Joseph City	Faxed second copy
Commissioner	William	Howarth	Juab County	Faxed second copy
	Boyd			
Commissioner	Jay M.	Lunt	Juab County	Responded
Commissioner	Michael	Seely	Juab County	No answer
Mayor	Clarence	Larsen	Junction City	No answer
Mayor	Terry	Higgs	Kanosh City	No answer
Mayor	Len	Mills	Kingston City	No answer
Mayor	J.L.	Moss	Koosharem City	Reminder
Mayor	Andrew	Robinson	Levan City	Responded
Mayor	Eugene	Blackburn	Loa City	Mailed second copy
Mayor	Vanor	Okerland	Lyman City	Reminder
Mayor	Connie	Best	Lynndyl City	
Mayor	Kent	Larsen	Manti City	Reminder
Mayor	Gary	James	Marysville City	No answer
Mayor	A.C.	Robertson	Mayfield City	Faxed second copy
Mayor	B. DeLyle	Carling	Meadow City	Faxed second copy
Commissioner	Tony	Dearden	Millard County	Responded
Commissioner	Lana	Moon	Millard County	No answer
Mayor	Kevin	Young	Mona City	Reminder
Mayor	Craig	Mathie	Monroe City	
Mayor	Roger	Cook	Moroni City	Reminder
Mayor	Chad	Brough	Nephi City	Faxed second copy
Mayor	Michael	Anderson	Oak City	Faxed second copy
Commissioner	W. Kay	Blackwell	Piute County	Faxed second copy
Commissioner	Martin	Jensen	Piute County	Faxed second copy
Mayor	Ron	Allred	Redmond City	Faxed second copy
Mayor	Paul	Lyman	Richfield City	Faxed second copy
Mayor	Evelyn	Neilson	Salina City	Faxed second copy
Commissioner	Robert	Bessey	Sanpete County	Reminder

Title	First Name	Last Name	City/County	Reminder
Commissioner	Eddie	Cox	Sanpete County	No answer
Mayor	Barry	Monroe	Scipio City	Faxed second copy
Commissioner	Peggy	Mason	Sevier County	Faxed second copy
Commissioner	Ralph	Okerland	Sevier County	No answer
Mayor	James L.	Freeby	Sigurd City	
Mayor	Robert S.	Allred	Spring City	Reminder
Mayor	Curtis	Ludvigson	Sterling City	No answer
Mayor	Don V.	Cook	Torrey City	Reminder
Mayor	Ron	Lamb	Wales City	Responded
Commissioner	Dick	Davis	Wayne County	Responded
Commissioner	Meeks	Morrell	Wayne County	No answer
Commissioner	Glenn	Okerlund	Wayne County	

Appendix C



Please answer these questions and return the completed form to:

Six County Association of Governments
250 North Main
P.O. Box 820
Richfield, UT 84701

What community do you live in? _____

If you live in a rural area, where do you live (which county and what part of the county)? _____

What is your employment status?

- | | |
|---|-------------------------------------|
| <input type="checkbox"/> Employed full-time | <input type="checkbox"/> Unemployed |
| <input type="checkbox"/> Employed part-time | <input type="checkbox"/> Retired |
| <input type="checkbox"/> Work at home | <input type="checkbox"/> Student |

Where do you work? _____

How do you normally get to work?

- | | |
|--------------------------------------|--|
| <input type="checkbox"/> Walk | <input type="checkbox"/> Drive with someone else |
| <input type="checkbox"/> Bicycle | <input type="checkbox"/> Ride in a car with someone else |
| <input type="checkbox"/> Drive alone | <input type="checkbox"/> Other _____ |

Do you or does someone in your household have special transportation needs (developmental or physical disabilities which impair mobility)?

Do you have a vehicle for your personal use?

How many times in the past year have you needed some type of public transportation?

- | | |
|---|----------------------------------|
| <input type="checkbox"/> Never | <input type="checkbox"/> Monthly |
| <input type="checkbox"/> Once | <input type="checkbox"/> Weekly |
| <input type="checkbox"/> Twice | <input type="checkbox"/> Daily |
| <input type="checkbox"/> More than twice, but less than monthly | |

What are the greatest transportation needs in the Six County Area?

What public transportation services (buses and/or vans) should be provided in the Six County Area? Where should the service go? What type of service is needed? Who should provide the service?

Would you be willing to pay a fare for public transportation?

Would you be willing to increase taxes to support public transportation services?

Property tax?	How much per year?
Sales tax?	How much?
Other tax?	

Use additional paper if needed.

Responses may be e-mailed to lscs@lscs.com

KIDS ON THE MOVE



HEY KIDS!! Right now, our area does not have public transportation. Do you know what public transportation is? Public transportation is riding buses, trains, bicycles, or sharing rides to get to where you need to go.



You can ride public buses with your friends, catch up on all the gossip, meet other people and most important get to where you need to go! And for those kids looking out for the environment, this is a great way to get people to reduce pollution!



Please answer the following questions and send them to us.



DO YOU GET STUCK WAITING FOR SOMEONE TO TAKE YOU SOMEWHERE?

Yes__ No__ Sometimes__ Never__



DO YOU THINK IT WOULD BE COOL TO RIDE THE BUS?

Yes__ No__



IF YES, WHY? (Choose all that apply)

Good way to get where I need.

Meet friends.

Good for the environment.

Other



WHERE WOULD YOU WANT TO GO ON THE BUS?

WOULD YOU WANT TO SPEND YOUR HARD-EARNED MONEY TO RIDE THE BUS?

Yes__ No__ Maybe__

THANKS FOR YOUR IDEAS-KIDS ON THE MOVE!!

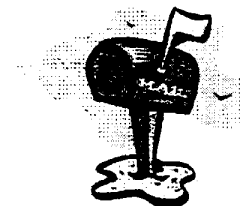


PLEASE MAIL TO THE ADDRESS BELOW.

LSC, Inc.

19 Boulder Ct.

Colorado Springs, CO 80903



Six County Area Transit Feasibility Study and LSC, Inc., 1998

(Published in the *Richfield Reaper* July 8, 1998)

Appendix D



TABLE S2 Recommended methodology for estimating annual non-program-related rural passenger transportation demand

$$D = R_e E \left(\frac{1}{1 + k_e e^{-U_e}} \right) + R_m M \left(\frac{1}{1 + k_m e^{-U_m}} \right) + R_p P \left(\frac{1}{1 + k_p e^{-U_p}} \right)$$

where:

D = annual demand for Non-Program-Related passenger transportation.
(One-Way Trips per year)

$R_e = 1,200$

$R_m = 1,200$

$R_p = 1,200$

E = number of persons age sixty or over.

M = number of mobility-limited persons age sixteen to sixty-four.

P = number of persons, age sixty-four or less, in families with incomes below the poverty level. The definition of the poverty level is that used for the 1990 U.S. Census.

$$k_e = e^{6.38}$$

$$k_m = e^{6.41}$$

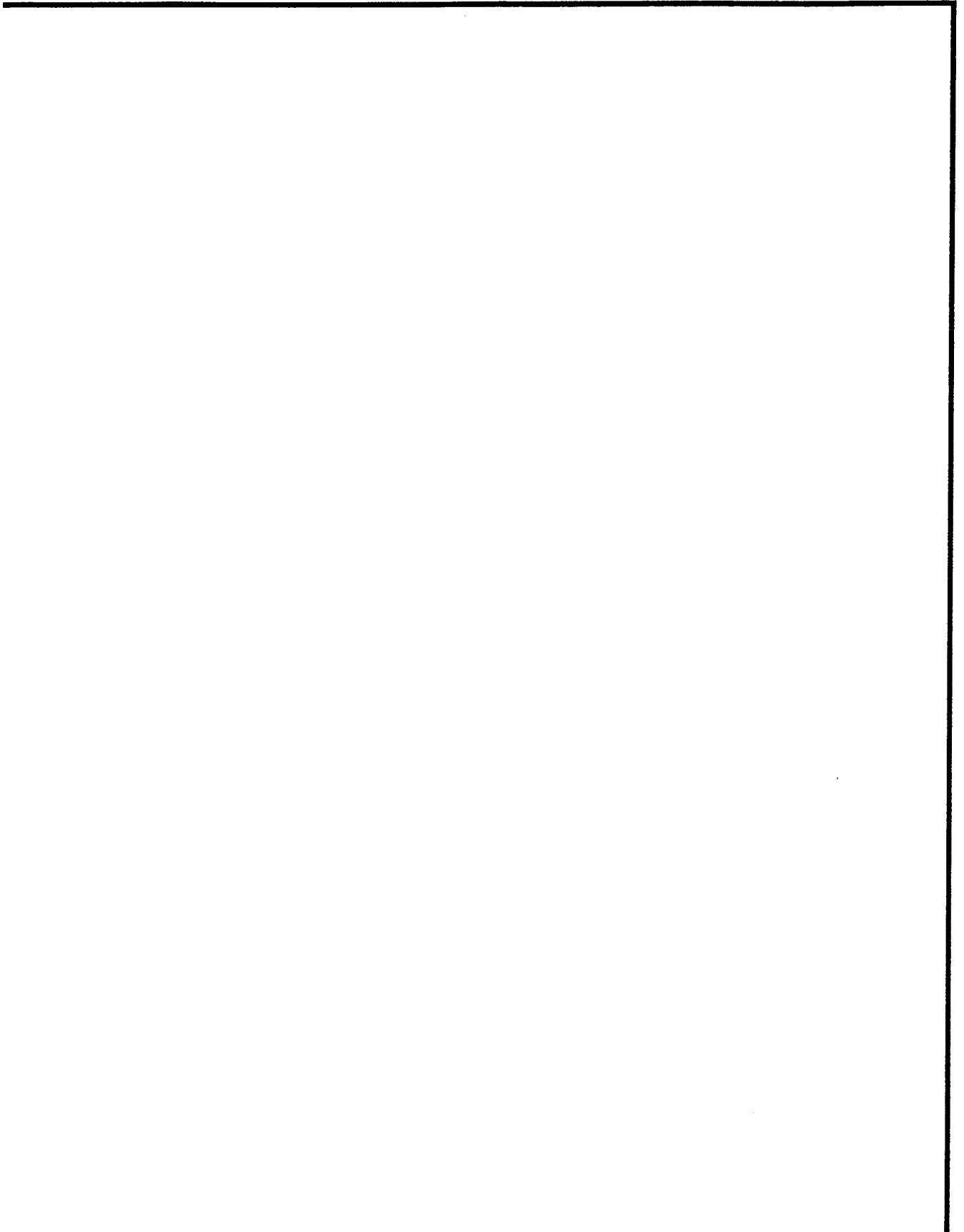
$$k_p = e^{6.63}$$

$$U_e = 0.000510 \times \frac{\text{Annual Vehicle - Miles Available to Elderly Market}}{\text{Area of the County}}$$

$$U_m = 0.000400 \times \frac{\text{Annual Vehicle - Miles Available to Mobility - Limited Market}}{\text{Area of the County}}$$

$$U_p = 0.000490 \times \frac{\text{Annual Vehicle - Miles Available to Low - Income Market}}{\text{Area of the County}}$$

Appendix E



Sample Job Description: Transportation Coordinator

GENERAL STATEMENT OF DUTIES

Responsible for grant administration, program development and planning, training, individual agency and system reporting, and motor fleet management and maintenance of the transportation system. Work is performed under the general direction of the Six County Association of Governments Executive Director.

MAJOR RESPONSIBILITIES

Manages and administers the public transportation program that exists in the Six County Area to include scheduling of passengers and drivers.

Responsible for developing the service plan and implementing the service recommendations provided in the Six County Transit Feasibility Study.

Designs all monitoring and evaluation forms and procedures to ensure appropriate assignment of vehicles for each of the transportation services.

Evaluates service performance and recommends changes to meet the transportation system goals.

Completes designated state and/or federal statistical reports.

Develops vehicle specifications and/or equipment requirements in conjunction with appropriate state agencies.

Prepares grant applications for capital and operating assistance. Identifies potential sources of new grants and prepares the necessary documentation.

Monitors budget expenditures and recommends appropriate actions to assure that established budgets are followed.

Monitors vehicle utilization through a uniform reporting process.

Develops and monitors the preventive maintenance program.

Supervises drivers and dispatchers.

Prepares and negotiates contracts with other transportation service providers.

Attends training workshops as appropriate.

Advertises for, interviews, and recommends employment of qualified personnel to the Transit Advisory Board and the Executive Director.

Responsible for billing and collection of fees.

Develops policies and procedures for the drivers to follow regarding transportation for clients and vehicle emergencies that meet all applicable federal, state, local, and program standards and guidelines.

Prepares the Transit Advisory Board agenda and board information packages and reports. Participates in the Transit Advisory Board meetings and prepares minutes of the meetings.

Performs other duties assigned by the Executive Director.

KNOWLEDGE, SKILLS, AND ABILITIES

General knowledge of office practice and procedure.

Ability to plan, direct, coordinate, and supervise.

Ability to use judgment in organizing and establishing report formats and evaluating system performance.

Ability to gather and draft materials from a variety of sources.

Ability to understand federal, state, and county policies and procedures, rules, and regulations concerning transportation and general operations.

General knowledge of budgeting concepts and grant writing.

Working knowledge of computers and spreadsheet programs.

Understanding of OSHA requirements.

Typing is desirable.

Must possess valid Utah driver's license, defensive driving, CPR, and first-aid training.

EDUCATION AND EXPERIENCE

Associate's degree in business administration, social work, or human services, or a related field with at least two years experience in planning, management, or supervisory work and demonstrated knowledge of the required duties of the position; or any equivalent combination of related course work, experience, and training.